

maculosa

=Br 97,419 (10)

Dendroica maculosa

1896. Penobscot Bay, Maine.

Deer Island. June 20³/₈ 21³/₈ 22¹/₈ 23¹/₈ 24⁵/₈ 25²/₈ 26¹/₈ 28¹/₈ 29¹/₈
July 5⁵/₈ 6¹/₈ 7¹/₈ 8¹/₈ 9¹/₈ 10¹/₈ 13²/₈ 14¹/₈ 17¹/₈ 18¹/₈

Isle au Haut. July 8¹/₈

Sedgwick July 15¹/₈ } One or two only heard in each town. Probably they
Brooksville " 16 } were not singing freely for the whole country is a ^{broken} prairie.

July 14 Stinson's Neck, Deer Island. In full song this evening for an hour or more.
Four birds in the same pair of woods but distributed for half a mile
along a wood road gave the witty-witty-wreacky song but one occasionally
added a third "witty" before the wreacky and frequently substituted for this
song a higher wittles-wittles (always two "wittles" & no more) very suggestive of
the song of Geothlypis trichas.

June 24 The Magnolia Warbler sings later into the evening than most members song
of the genus. I heard them to-night (June 24) for nearly half an-
hour after sunset. One sang Witty-witty-wreacky very plainly.

Dendroica maculosa.

Peterborough, New Hampshire.

1898. Abundant, frequenting spruce grown pastures (Ben Mere farm) and spruce and hemlock woods (Cunningham Pond and base of Pack Monadnock). At the bog near our house I frequently heard three and occasionally four males singing at once. The usual forms of song are witty-witty wìtchy, witty-witty-witty-wìtchy or witty-witty-wrèchy. Young in full autumnal plumage seen July 23rd. The old males continued in full song up to July 30th and I heard one on August 2nd (July 7_x¹, 11_x², 12_x¹, 18_x¹, 19_x², 20_x², 21_x¹, 24_x³, 25_x², 30_x¹, August 2_x¹).

Concord, Mass.

1899. The Black and Yellow Warbler was in the black oak in the middle of the large opening behind Ball's Hill flitting about in the full sunlight among the unfolding leaves, jetting and flirting up its tail and half opening its wings. It seemed fairly delirious with excitement or pleasure. I have rarely seen so handsome a male. The black stripes on the sides were very broad and clear.

Birds of Magdalen Islands.
Dr. L.B. Bishop.

51. *Dendroica maculosa*. MAGNOLIA WARBLER.—Rare. A male taken on Grindstone, July 16.

Auk, VI. April, 1889. p.148

Summer Bds. Restigouche Valley, N. B.
July, '83. J. Brittain and P. Cox, Jr.

Dendroica maculosa. MAGNOLIA WARBLER.—Quite common.

Auk, VI. April, 1889. p.118

Birds of Upper St. John.
Batchelder.

19. *Dendroica maculosa* (Gm.) Bd. BLACK-AND-YELLOW WARBLER.
—Common.

Bull. N.O.C., 7, April, 1882, p.109

Birds within Ten Miles of Point
de Monte, Can. Comeau & Merriam

17. *Dendroica maculosa*. BLACK-AND-YELLOW WARBLER.—The commonest Warbler, breeding abundantly. Earliest seen May 29, 1882.

Bull. N.O.C., 7, Oct, 1882, p.234

Dwight. Summer Birds of
Prince Edward Island.

Dendroica maculosa. MAGNOLIA WARBLER.—This is the characteristic Warbler of the region and is abundantly represented. It is most abundant in low growths of spruces, where the variety of its song is often confusing.

Auk X. Jan. 1893. p.13

Summer Birds of Bras D'Or Region
Cape Breton Id., N.S. J. Dwight, Jr.

Dendroica

50. *D. maculosa*.

Auk, 4, Jan., 1887. p.16

Summer Birds of Sudbury, Ont.
A. H. Alberger.

637. Magnolia Warbler. Common. Breeds.
With large young on July 7th.

O. & O., XV, June, 1890, p.88

Birds of Toronto, Canada,
by James W. Fleming.

Part II, Land Birds.

Auk, xxix, Jan., 1907, p. 84.

249. *Dendroica maculosa*. MAGNOLIA WARBLER.— Regular migrant, abundant May 8 to 24, and September 8 to 26; earliest spring record April 15, 1890 (Geo. E. Atkinson); latest, June 1, 1900 (J. Hughes Samuel); earliest fall record August 27, 1900 (J. Hughes Samuel); latest, October 14, 1906.

59.
Summer Birds of the Cobalt Mining Region,
Nipissing District, Ontario.

by Frederick C. Hubel. Auk, xxxiv, Jan., 1907, p. 52

59. *Dendroica maculosa*. MAGNOLIA WARBLER.— Only met with once, July 24.

NOTES ON A FEW BIRDS OCCURRING IN THE VICINITY
OF PORTLAND, ME.

BY NATHAN CLIFFORD BROWN.

ONE of the commonest Sylvicoline summer residents in the townships adjacent to Portland is *Dendroica maculosa*, a bird whose southernmost regular breeding-ground has been supposed to be the latitude of Umbagog Lake. It breeds in especial abundance about the spruce woods of Cape Elizabeth, in that locality outnumbering every other Warbler except *Dendroica virens*. Young first make their appearance about August 3, and soon abound.

Bull. N. O. C. 4, April, 1879, p. 106.

Birds of Dead River Region, Me. F. H. C.

23. *Dendroica maculosa*, (Black-and-Yellow Warbler). Fairly common in certain localities, being rather erratic in its movements. It is quite common around Jim Pond, just back of Eustis, and a few were seen near Black Mountain. For several days none of this species would be seen, and again at certain places they were to be found in considerable numbers, seeming to be restricted in their movements to the forests which contained a certain admixture of hard-wood growth. No nests were found, but satisfactory proof of their breeding was not wanting. A nest found at Umbagog, June 6, '82, was placed in a hemlock shrub and was composed of grass and fine bits of hemlock strips lined with a few bits of hair and a single fluff of cotton and an inner lining of horse-hair, though how they procured the two last named materials is beyond my comprehension. It contained only three eggs, of a creamy white spotted with a few blotches of brown in form of a wreath at the larger end.

O. & O. XI. Sep. 1886. p. 130

Summer Residents on Southwest
Coast of Maine. T. H. Montgomery, Jr.

657. Magnolia Warbler. Rather common
at Boothbay.

O. and O. 15, Nov. 1890, p. 162

1883

Dendroica maculosa

Bridgford Pop.
Maine

August 1 no. 297, ♂

August 3

no. 313, ♂

" 314, ♀

" 315 ♀?

"The Black & Yellow Warblers
are very common"

(By field coll. & with back
of C. R. Bond)

Shelburne, N. H.

Dendroica maculosa

1884

July.

Abundant especially among young songsters. The males ceased singing about the 15th or at least few were heard after that date and none I believe later than the 20th. On the 8th I noted the songs of several as follows: 'tee-tee-tee-tee'; ~~per-de-per-de-ser~~; ~~pe-per-de-per-de-ser~~, the song is not loud but remarkably emphatic the strongest emphasis being always on the last syllable.

The adults showed no signs of moulting up to the close of the month. I shot the finest

Profile House, N. H. Aug. 1-12-1867.

Dendroica maculosa. - the commonest bird in the ^{woods} ~~hedge~~. Some in full song, others feeding young barely able to fly.

" maculosa. - July 27 Profile House N. H. July 27-Aug. 7. 1886

Bds. Obs. in Franconia, N. H. June 11-21 '86, and June 4-Aug. 1, '87, W. Faxon

62. Dendroica maculosa. BLACK-AND-YELLOW WARBLER.—Common.

Auk, V. April, 1889. p. 153

Breezy Point, Warren, N. H.

1895. Dendroica maculosa

May

29 10¹² 30 12 31 12

June 1⁶ 2⁸ 3⁶ 4⁵ 6² 7⁶

plumaged ♂ & ♀ have one blue on the
 25th. The ♂ shows greatly with his
 mate the duty of feeding the young;
 indeed on two occasions ♀ has birds
 which were tended by the ♂ alone.

Profile House, N. H. Aug. 1-12-1867.
Dendroica maculosa. — The commonest bird in the lot. ^{more} some
 in full song, others feeding young barely able to fly.

" *maculosa*. — July 27 Profile House N. H. July 27-Aug. 7. 1866

Bds. Obs. in Franconia, N. H. June 11-21
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Auk, V. April, 1888. p. 153

Breezy Point, Warren, N. H.

1895. *Dendroica maculosa*

May

29 10¹⁵ 30 15 31 12

June 1 6 2 8 3 6 4 5 6 2 7 6

Breezy Point, Warren, N.H.

Dendroica maculosa.

1894.

Warren M. 15¹/_x - 16²/₄ 17²/₄ 19²/₄ 20³/₄ 21⁴/_x 22⁴/_x 24³/_{1x}
 Woodstock R. H. 25¹/_x 26³/_x 27⁴/_x 28⁸/_x 29⁶/_x 30⁴/_x

A very common bird in the open-
grown pastures up to about 2000 ft. but
apparently wanting on Mooslaunk Mountain.
The song of this species is exceedingly
variable. In some individuals it is
much like that of Zyania canadensis,
in others it resembles that of P. trichas.
What I take to be the typical song
however is exceedingly close to that of the
hooded Merganser. Indeed I have heard
several birds say Peter, Peter, register
with almost perfect distinctness.
On the 24th I have heard have a flight song.
It was somewhat rare for the prelude
which consisted of a succession of chirps
of short shrilling notes similar to those
of the Oven bird. I have never before heard
of any Dendroica singing on wing this kind
mounted about 20 ft. (see over)

Dear Mother - I have been
very busy lately, but I
will write you a few lines
now. I am well and hope
you are the same. I have
not much news to write
at present. I am
lovingly yours, Mary

62. *Dendroica maculosa*. MAGNOLIA WARBLER.—Heard sparingly at the base of the mountain. They inhabit, among other places, the small firs and spruces on the edges of the pastures.

BY ALBION C. COLE. NEW YORK, 1851, p. 244.

Middlebury Co., Mass.

Andrena maculosa.

1884

Mass.

May 19. Shot a ♂ Wattham.

" 22 Bryant shot them ♀s & I heard
a ♂ sing in cedar woods in
Belmont.

" 24 Shot them ♀s, Belmont.

August 25. Shot a young ♀ in full fall plumage
among red cedars on the Coolidge farm,
Watutown. It was in a mixed flock.

Sept. 1. Shot a pale and otherwise peculiar young female
in the same place (Watutown).

" 6 Shot a ♀ among yellow pines (Watutown)

Sept. 12. One young seen rising from
edge of the 1st section butt (Hutton).
It was very active & frequently
caught flying insects with a dash
over its back.

Notes on Birds of Winchendon, Mass.
William Brewster.

Dendroica maculosa.—This Warbler breeds in about the same numbers as the Yellow-rump. Both species were nearly sure to be seen daily, but it was unusual to find more than one pair of either in any single tract of woods, however large. The favorite haunts of the Black-and-yellow, here, as in northern New England, are swamp edges, woodpaths, or borders of openings where the undergrowth is more or less intermixed with young spruces and balsams. In such a place—within about ten yards of a woodpath—we found a nest June 15, 1888, containing four nearly fresh eggs. This nest was typical in position, being placed near the top of a small spruce at a height of about five feet. In construction it differed from Maine nests of this species only in respect to the lining, which was largely of horse hair with, however, an admixture of black rootlets.

Ank, V, Oct., 1888. p.391

W. Middlesex Co. Mass,

June 25-30, 1889.

Dendroica maculosa

Ashby, Ashburnham, Mt Watatic--- On Mt Watatic these warblers were confined to a tract of pasture comprising perhaps thirty acres grown up with young spruces of from six to twenty feet high which grew in thickets with open spaces between. This tract extendede approximately from an elavation of 1000 to 1,600 feet. In the dense forest of larger spruces which covers the west side of the mountain the Black Yellow Warbler was not once observed. One of the species was heard singing, however, in spruces ^{nearby} at the foot of the mountain in Ashburnham, and another was noticed by Mr. Faxon in a similar swamp perhaps an eighth of a mile from the mountain on the other side in Ashby. The elevation of both of these swamps, however, must have been several hundred feet above that of the town of Ashby. The bird was in full song during our stay.

Birds of Bristol County, Mass.
F.W.Andros.

Dendroica maculosa (Gmel.), Magnolia Warbler. Migrant, rare.

O. & O. XII, Sept. 1887 p.141

Bds. Obs. near Graylock Mt. Berkshire
Co. Mass. June 28-July 16. W. Faxon

55. *Dendroica maculosa*. BLACK-AND-YELLOW WARBLER.—Common. Noted from about 1000 to 2200 feet. Prefers somewhat open country with a second growth of spruce. Hence, although belonging to the Canadian fauna more strictly than the Canadian Warbler, it is not so common at high levels as the latter.

Ank, VI. April, 1889. p.103

Mass. (near Concord). 1887

1887

May 12¹ - 16^{1 1/2} - 21^{1 1/2} - 22^{2 1/2}

Aug. 17^{Blue}

Dendroica maculosa,
Mass (Winchendon)

1887

June 23^{3 1/2} - 26^{3 1/2}

Dendroica maculosa Winchendon, Mass. June, 1888.
maculosa 12^{1/2} - 13^{1/2} - 15^{1/2} - 16^{1/2} - 17^{1/2} -

Birds Known to Pass Breeding Season
nr. Winchendon, Mass. Wm. Brewster

Dendroica
64. " *maculosa*.

Ank, V, Oct., 1888, p. 389

General Notes.

Summer Birds of Central Berkshire
Country, Mass. ~~Francis H. Allen~~ Ralph Hoffmann

22. *Dendroica maculosa*. MAGNOLIA WARBLER. — Not rare among
spruces from Becket northward.

Ank XII. Jan. 1895 p. 89

Dendroica maculosa

Waltham, Mass.

(one) Oct. 9, 1904

A. C. Conway

420.

Arrivals of Mig'y Birds, Spring-1886.
Central Park, N. Y. City. A. G. Paine, Jr.

May-9, *Dendroica maculosa*, (675). Magnolia
Warbler.

O. & O. XI, July, 1886, p. 109

Some Birds of Lewis Co, N. Y.,
O. Hart Merriam

In the Eastern (Adirondack) region
D. maculosa, is found breeding.

Bull. N. O. C. 3, April, 1878, p. 53

Birds of the Adirondack Region.
O. H. Merriam,

27. *Dendroica maculosa* (Gmelin) Baird. BLACK-AND-YELLOW WAR-
BLER.—Common summer resident, breeding throughout the wilderness.

Bull. N. O. C. 6, Oct., 1881, p. 227

At a distance these towering cliffs present a most beautiful appearance, at one point stratified with geometric lines of perfect masonry and at others displaying the richest hues. On the eastern side of the inlet the land from the top of the cliffs rises gradually for perhaps two hundred yards, terminating in an abrupt ridge.

Turning homeward, I noticed in a big "dead-end to Swaling" a pine tree with the top broken off, leaving all. The a wide, ragged hollow on the south side. Into that of the this were thrust four stout sticks. It was fully which at thirty feet from the ground, and while I was placed by wondering how they came there, a Fish Hawk of birch, passed overhead and added a fifth stick to the shattered and collection, thus solving my problem for me. Lock.

The planting of this stick was a work of considerable time and patience. The mate came down, which and assisted, and some very animated conversation first conversation ensued which I was too ignorant to translate. I noticed a late, or at least could only do so in a manner, she flew to which could not be called anything but very the birches "freely." I got quite interested in this peculiar embryo of architecture, and spent a good deal of time, which during the next week "overseeing" the job, I homelock. When the nest was completed it looked as if it were carried was stuck against the south side of the stub, and for ornament and the hollow was plainly close to this edge, and being made With a glass I could see the feathers of the sitting bird being made ting bird through the side of the nest. After a few hours, incubation was well advanced there came a rather successful very windy spell of weather. After it was over, especially the male was exceedingly active, adding material or burnt rial to the north side of the structure. Plainly, the peculiar the winds had shown them that their domicile, from one was top heavy, and he was balancing it for fear, I deemed of a stronger gale might come and topple it over. Hoppers to Last year this same nest was repaired and the top and old hollow completely filled up, and a new one was made on top and in the middle.

be the proper place and here we met with best success. From a series of eight sets, taken on the island, before me, there is considerable variation as to markings, the ground being invariably white.

No. 1. Contains four eggs, which are spotted chiefly about the crown with vandyke brown. A wreath of brown blotches encircles the base of each specimen.

DEVELOPMENT OF A BROOD OF BLACK-AND-YELLOW WARBLERS (*Dendroica maculosa*).—My co-laborer in this field, Mr. James W. Banks, desires me to record the result of some observations made by him last season, of the rapid growth of young Magnolia Warblers. On June 26, just at dusk, a nest was discovered containing four eggs, which exhibited signs of advanced incubation, and early on the following morning one of the chicks had freed itself from the shell, while the others were on their way out. When the nest was visited on July 1, the four chicks were partially fledged and on the fourth day of the month, or eight days from the time they were hatched, two of the brood had left the nest and the remaining pair were so large they almost filled it and were nearly in full feather. While Mr. Banks stood watching them one of the chicks jumped up on the edge of the nest and fluttered off to a bush near by, and, a couple of hours later on, the nest was empty and the parent and brood were seen in an adjoining hedge.—MONTAGUE CHAMBERLAIN, St. John, N. B.

No. 2. Contains four eggs, resembling number one, having a few blotches of obscure lilac on the crown and minutely dotted with vandyke.

No. 3. Contains four eggs, beautifully wreathed about the crown with reddish-brown dots and deeper blotches.

No. 4. Contains three eggs, similar to number two, blotched more heavily with vandyke and umber.

No. 5. Contains three eggs, and is the counterpart of number one, the ring of vandyke being slightly more prominent.

No. 6. Contains two eggs, blotched with obscure lilac about the crown, while the whole surface is flecked with reddish-brown.

Nos. 7 and 8. Are handsome sets, containing four eggs each, being clouded on the crown with obscure lilac, and blotched, spotted and flecked with beautiful shades of brown. The wreath in these sets is not so clearly defined as in others.

My veteran friend, Mr. Cheney, in a recent letter tells me that he found between twenty and thirty complete sets during his leisure hours this season.

O. & O. XII. Nov. 1887 p. 182-183

On the same day he found two nests of Black and yellow Warblers, (*Dendroica Maculosa*) both built in small firs three and four feet from the ground and containing four eggs partially incubated.

(x July 5. 1881)

St. John, N. B. M. Chamberlain.

O. & O. VII. May. 1882. p. 119.

Breeding of *Dendroica maculosa* in Western Pennsylvania.—While on a collecting trip in Butler and Armstrong Counties, Pennsylvania, in May, 1880, I had the good fortune to find the Magnolia Warbler nesting in the narrow valley—they are rarely a hundred of the broods emptying into Buffalo Creek, about six town of Freeport. On May 30, while rummaging for growth of young hemlock saplings, I found a nest feet from the ground in the midst of one of them. It was a blackish, dead twig with fine weed-stems and On June 1 the nest contained three eggs, and on June 2 the nest in which now a fourth egg had been placed, and though I waited for her to return to it, in complete the identification by shooting her as she flew e refused to do so, and in company with her mate about until nightfall. On my return early the next e left the nest at my approach, and a moment later lay examining her at my leisure, I saw there was no mistake in, and when later I took the precaution to compare the impton in Coes's Key, it agreed in every particular.—

Beaver, Beaver County, Penn.
AUL, VII, Jan, 1881 p. 116.

The Black and Yellow Warbler at Grand Manan.

BY CHAS. H. ANDROS.

This exquisite species (*Dendroica maculosa*) being one of the few for which we had made the island an objective point, it was my original intention to have devoted a separate article to its nidification, but being aware that the birds are comparatively well known, and the eggs represented in nearly every collection of size, I concluded to give our experience in the simple monographic form in which the others have been dealt with, reserving the privilege, however, to speak briefly on the colorations and markings of a few of the sets taken. Hardly had our feet touched Dominion soil on our walk to Northern Head when the sweet song of the Black and Yellow was recognized, and was soon a familiar one to us, proceeding usually from some copse or brush clearing. Often this pleasing variation would spur us to efforts extraordinary when stumbling along over tangled brush and interlaced creepers in some execrable swamp, where the only other sound to break the monotony would be the occasional *haws-haws* of the Gull, or the far off whistle of the White-throat on the hills above. The precipitous walls which rise out of the waters of the Cove de Whale are probably nearly as high as any spot on the northern half of the island.

At a distance these towering cliffs present a most beautiful appearance, at one point stratified with geometric lines of perfect masonry and at others displaying the richest hues. On the eastern side of the inlet the land from the top of the cliffs rises gradually for perhaps two hundred yards, terminating in an abrupt ridge, which is kept up around North Head to Swallow-tail Point, nearly two miles in all. The growth of this ridge differs from that of the plateaus above, the furze and juniper which at first predominate being gradually displaced by hemlock, with now and then a clump of birch, ash or alder, while spruces are scattered and intermixed with the prevailing hemlock.

On the side of this ridge we found our first nest of the Magnolia on the 5th of June, which at that comparatively early date was first commenced. The female had when first noticed a bit of catkin in her bill with which she flew toward us and disappeared among the birches beyond. A short search revealed the embryo domicile some three feet up in a spruce, which stood in the centre of a clump of hemlock. The soft material which the female carried when first noted was evidently used for ornamentation only, the nest being invariably constructed without regard to warmth, being made up of rootlets, dry grasses and a few hairs. Not confined to high land we met with success where the ground was slightly fenny, especially where the heavy timber had been cut or burnt off, leaving the small stunted spruces peculiar to Northern New England, varying from one to seven or eight feet in height, and deemed of too little consequence by the wood choppers to cut. They are thick and bunched at the top and afford ample protection for their nests. Some of the burnt districts would be devoid of these dwarf shrubs while others would be thickly dotted with the growth. The low shrubs seem adapted to the liking of some, though the majority prefer the height of from two and one-half to six feet, from our observations coupled with those of Mr. Cheney. Ross' Island made a good showing after a morning's search, but the other islets which fringe the coast do not seem favorable to its nidification; the main seems to be the proper place and here we met with best success. From a series of eight sets, taken on the island, before me, there is considerable variation as to markings, the ground being invariably white.

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O. & O. XII. Nov. 1887 p. 182-183

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M. Chamberlain.

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BOSTON, MASS., NOVEMBER, 1887.

No. II.

A Series of Eggs of *Dendroica Maculosa*.

BY J. P. N.

The eggs of the beautiful Black and Yellow or Magnolia Warbler, (*Dendroica maculosa*) present a far greater variation when seen in a large series than would be supposed. In size, ground color and markings they show great differences. The number, however, would appear to be always four. Many of the eggs are very beautiful, and the markings are often much heavier than those of most species of warblers.

In the following paper an attempt is made to describe a series of twenty-four sets, all of which are of undoubted authenticity. The whole series were collected at Grand Manan, N. B., by a veteran collector, who has probably taken more sets of warbler's eggs than any man living.

The measurements are all in hundredths of inches.

Set I. June 16, 1885. Four eggs. Very faint grayish white ground color. One of the eggs almost unmarked save for a very few lilac dots and streaks. A second has only a few reddish brown specks. The third has the spottings more distinct; while the fourth has a few larger spots, but the effect of the whole set is of a more unmarked appearance than any others of the series: .63 x .52; .62 x .51; .63 x .51; .63 x .53.

Set II. June 15, 1886. Four eggs. White, marked with lilac and light reddish brown spots and streaks: .64 x .47; .65 x .48; .66 x .49; .64 x .49.

Set III. June 8, 1885. Four eggs. Light creamy white, delicately marked with straggling lines and spots of reddish brown, somewhat after the manner of eggs of the genus *Icterus*. This style of markings seems to be rather unusual for *Dendroica maculosa*: .66 x .49; .67 x .50; .67 x .49; .77 x .50. The last described egg of this set is very curious, as apart

from the fact of its measuring a tenth of an inch longer than usual, it is very pointed and is shaped like some specimens of *Hirundo erythrogastra*. To add to its peculiarity nearly all the markings are clustered around the smaller end.

Set IV. June 24, 1885. Four eggs. Creamy white, and much more glossy than usual for this species. Marked with small reddish brown and lilac specks and spots, mostly at the larger ends: .60 x .49; .60 x .49; .58 x .49; .60 x .49.

Set V. June 13, 1885. Four eggs. Creamy white speckled with lilac and brownish red, chiefly at the greater ends: .56 x .48; .59 x .48; .59 x .45; .56 x .47.

Set VI. June 18, 1887. Four eggs. Faint grayish white, marked with lilac and reddish brown spots more heavily at the greater ends. In one of the eggs the lilac is entirely wanting, the spots are much heavier, and they are all of a reddish brown: .60 x .50; .63 x .49; .65 x .48; .62 x .49.

Set VII. June 9, 1885. Four eggs. Dull white, speckled with lilac and reddish brown, more closely near the larger ends: .67 x .47; .66 x .47; .67 x .45; .67 x .47. This set very closely resembles an undoubted set of *Dendroica discolor* collected near Savannah, Georgia, by Mr. T. D. Perry.

Set VIII. June 18, 1887. Four eggs. White, speckled and spotted (mainly near the larger ends) with reddish brown and lilac. The markings form wreaths: .67 x .49; .65 x .50; .66 x .49; .65 x .49.

Set IX. June 15, 1885. Four eggs. Pure white, spotted at the greater ends with reddish brown and lilac: .63 x .52; .62 x .51; .61 x .48; .62 x .51.

Set X. June 17, 1885. Four eggs. Light creamy white, spotted with two shades of reddish brown, (one of them darker than the other) and also with a few lilac dots. The markings form an indistinct circle near the greater ends: .70 x .49; .68 x .47; .70 x .49; .68 x .49.

Destruction of Bird Life by the Cold Wave of
May 21-22, 1882.

Dendroica maculosa: See under

Helminthophila peregrina.

Bull. N. O. C. 7, July, 1882, p. 185.

caerulea

Birds of Toronto, Canada,
by James S. Flaming,
Part II, Land Birds.
Auk, x x 15, Jan. 1907, p. 84.

250. *Dendroica cerulea*. CERULEAN WARBLER.—Rare spring migrant. I have the records of three males, May 24, 1890, May 20, 1893, and May 11, 1897; besides these there are four or five other local specimens, including a pair in the museum of Toronto University, taken in 1856.

Mass. (Canton)

Dendroica caerulescens

1895-

June 7 July

Proper of
country in
opposite
side of this road

Mr. J. H. Bowles tells me that a Canadian Warbler spent most of the summer in an orchard near Green Lodge Station (N. & P. R. R.). It was a ♂, very tame, sang freely, was seen by him many times often within 10 to 20 feet. It was always to be found in this apple orchard which is isolated from other groups of trees & some distance from any woods. As I was here but Mr. B. Belais' town must have been a mate & nest. He described the song as very like a Parula's. He also described characteristic color & markings before I showed him skins. He is sure his bird was a *D. caerulescens*.

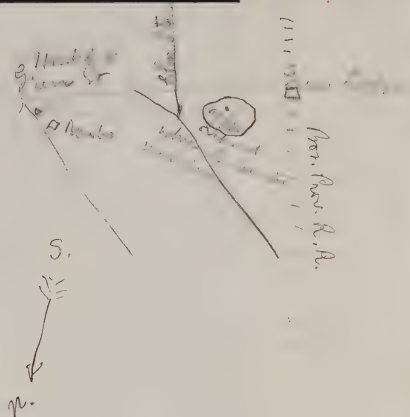
Dendroica rara.

Ad. male, taken at Worcester, Mass., May 21, 1882, by Mr. H. L. Rand, taxidermist in same city, and by him skinned and mounted. This was at the time of the famous Warbler flight. Mr. Reed of Worcester sold the bird from Mr. Rand's collection to a party in New York City. The address is lost and the bird cannot be traced. Mr. John A. Farley of Malden has seen the bird. The above information is partly from a letter on file written by H. L. Rand to J. A. Farley who gave it to Mr. Brewster, and partly from what Mr. Farley told when he called at the Museum, March 14, 1902.

Stoughton, Mass.

Massachusetts Bird Notes.—Florida *caerulea*. An immature male in the white plumage was shot in Stoughton, Mass., by a Mr. Berry, Aug. 22, 1908. The bird was mounted by E. R. Adams of Canton, to whom I am indebted for the record, and is now in the collection of F. H. Kennard.

Aug 26, Apr-1909, D. 199



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Cerulean Warbler
Albion Grove, R. I.

Doubts still existing in some quarters (see New England Bird Life, Part I, pp. 129-130), as to the Blue Warbler having been taken in New England, I am induced to present my own testimony on the subject. May 22, 1879, was one of those soft, mild mornings which are so favorable for

fresh arrivals. Throwing aside the quill, I made a dash for the nearest woods with those feelings so common to a counting-room naturalist—"anywhere for anything." I soon found myself in what is known as the Albion Grove—on the outskirts of the village of the same name—some five miles from Pawtucket. My attention was soon attracted to the unusual numbers of the Blue Yellow-backs, (*Parula Americana*.) Every tree seemed alive with them. Stepping into an opening, a flock of perhaps twenty came darting past. The temptation was too much. In the mechanical act of firing the peculiar appearance of one was the magnet that attracted its fate. As I picked it up, the first impression was that I had the female of the Black-and-white Warbler, (*Mniotilta varia*.) but close examination convinced me that I had something new. Though badly shattered, I carefully preserved and mounted it. It is now in my collection marked "Cerulean Warbler—male." Comparing it with some fine skins that I have received from Messrs. Rathbun & Wright, I find the markings are exceptionally well defined, but the plumage much darker—rather inclined to slate than blue. Few of our amateur collectors would have saved a bird in the same condition. In this connection, I would suggest to the readers of the O. and O.—save any specimen that attracts attention as unusual, no matter in what condition. If only the head, wings and feet are preserved—they may lead to an identification that will be of value to all.—*F. B. W.*
O. & O. IX, Mar. 1884, p. 27

ADDITIONAL CAPTURE OF THE CERULEAN WARBLER IN NEW ENGLAND.—Through the kindness of Mr. Charles M. Carpenter of Providence, R. I., I am enabled to record a second specimen of *Dendroica cerulea*, taken near Cumberland Hill, R. I., May 22, 1878. The Warbler was a male, and was in company with a flock of Blue Yellow-backed Warblers when shot. The first specimen recorded for New England was taken at Suffield, Conn., June 12, 1875, by Mr. E. I. Shores, and is now in his collection. Dr. Brewer, in his "Additions to his Catalogue of the Birds of New England,"* includes this record, and says: "This Western species is said to have been taken at Suffield, Conn. I therefore venture to add this bird to my list, though not without much hesitation." The doubt thus expressed by Dr. Brewer is entirely unnecessary, as the specimen was thoroughly identified.—RUTHVEN DEANE, *Cambridge, Mass.*

* Proc. Boston Soc. Nat. Hist., Vol. XIX, 1878, p. 303.

Distribution of New England Birds.-
A Reply to Dr. Brewer. H. A. Purdie.

The Blue Warbler (*Dendroica caerulescens*) om.
ited from his Catalogue by Dr. Brewer, was taken
June 12, 1875 at Suffield, by Mr. Shores.

Bull. N.O.C. 2, Jan., 1877. p. 14.

Some Birds of Rare or Accidental Occurrence in New England. H. A. Purdie

4. *Dendroica caerulescens*. BLUE WARBLER. — A male was obtained by Mr. Shores at Suffield, June 12, 1875. This species and *Poliophtila caerulescens*, though previously recorded as occurring in New England, have not been recently taken here.

Bull. N.O.C. 2, Jan., 1877. p. 21

Dendroica caerulescens at Seymour, Connecticut.—On May 10, 1888, I shot a fine adult female Cerulean Warbler from a flock of Parula Warblers with which it seemed to be associating. The locality was dry and somewhat elevated, with a growth of high hard-wood trees and but little underbrush. With its companions, the bird kept chiefly among the top-most branches where I watched it for twenty minutes until, leaving the Parulas, it gradually descended into the lower branches to some fourteen feet from the ground, when I shot it.

It measured: length 4.60, spread of wings 7.55 inches. Its stomach contained insects only. The largest ova in the ovary were about the size of No. 12 shot.—EDWIN H. EAMES, *Seymour, Conn.*

Auk, V, Oct., 1888. p. 431-32.

Cerulean Warbler

II.

My first acquaintance with this neat and pretty little Warbler was made one day in August, at the beginning of the Fall migration, a number of years ago. In company with my friend, Mr. F. S. Wright, I was collecting a few birds in a small piece of oak and chestnut woods near Auburn. He, while looking at the tops of some of the larger trees, espied a Warbler, which, on shooting, proved to be a good male of this species. It was the first that either of us had ever seen, but we knew what it was; and very pretty it looked as he held it in his hand. After duly admiring it, the bird was carefully put away in my friend's collecting basket. During the next half hour we shot four more, all of which were of the same sex as the first; and when the time arrived for us to go home, we were more than pleased with our day's success. Since then both of us have very often met with the Blue Warbler; for it has proved to be a regular Summer resident in our locality. Arriving from the South during the second or third week in May, according to the mildness of the season, one is quickly aware of its presence somewhere near by, from hearing its peculiar song. In order to see the bird, you need to look near the tops of the largest trees; for this species is eminently a tree Warbler in every sense of the word. During rainy weather it will be found nearer the ground, following its insect food wherever it goes. But on a bright, pleasant morning high in the treetops will you hear it singing. I have found these birds most abundant in wet woods, where the swamp ash and elms grow to a good height. Although this seems to be its favorite place, it may also be found sparingly in the dry woods with other Warblers. This is more rarely the case however. There is no

doubt that the Blue Warbler breeds with us, but I have never heard of its nest being found near here. This is not surprising, for from what we read of its nesting habits—the nest being built well up in large trees, and generally saddled on a limb—they must be very hard to find.

On Howland's Island, in the Seneca River and about eleven miles distant from Auburn, you can find this species quite abundant throughout the breeding season. Here, as elsewhere, their favorite haunts seem to be in the tall trees in the swampy parts of the island, or in the equally as heavy timber along the river's sides. And in the larger trees do they undoubtedly rear their young. Let one go to this locality on a warm day in May, and almost everywhere can a male bird be heard singing. This song once heard can be easily remembered, for the ending is long drawn out, and of a buzzing sound. The female bird is hard to see, and is seldom shot; at least such seems to be my experience. No doubt, because it lacks the song of the male and utters only the common chip of most of our Warblers. I have met with this bird, wherever I have been in our County, and at any time from the middle of May into the Summer. It seems to be quite evenly distributed in this section, but will be found more common in such places as I have named. It remains with us until about the last of August, and by the 10th of September all the residents and migrants seem to have departed, for I have never seen it after that date. For I must we patiently await the coming of another Spring ere it again puts in an appearance among us.—S. F. Rathbun, Auburn, N. Y. O. & O. IX, Mar. 1884, p. 28

Dutchess, Rare Long Island Birds.

Dendroica cerulea. CERULEAN WARBLER.—There is a fine male specimen of this species in full breeding plumage, which Mr. Akhurst shot in the vicinity of Crow Hill, where the Kings County Penitentiary now stands. There is no date attached to the specimen, nor can Mr. Akhurst recollect when it was secured; it is the only one he ever obtained on Long Island.

Auk X. July. 1893 p. 277.

Birds of Oneida County, New York.
Egbert Bagg.

Dendroica cerulea.—A fine male in full plumage was taken at Clinton, May 9, 1890.

Auk XI. April. 1894 p. 163

Capture of Dendroica Cerulea
at Highland Falls, N. Y.

3. *Dendroica cerulea*, (Wilson) Baird. I secured a fine male of this beautiful species, near my residence, May 17, 1875.

Edgar A. Mearns.

Bull. N. O. C. 3, Jan., 1878, p. 46.

Breeding of the Cerulean Warbler (*Dendroica cerulea*) in Niagara County, New York.—On May 30, 1888, while passing through a large wood, I noticed a nest on a fork of a horizontal limb of a small basswood tree, which I took to be the nest of the Least Flycatcher (*Empidonax minimus*). I also saw a pair of birds in a large tree, near the one containing the nest, but I was unable to identify them. On June 8 I found the bird on the nest, and on its leaving I shot it and was surprised to find that it was a female *Dendroica cerulea*. The nest contained three eggs when secured, but one or two fell from the nest when the bird left it. Incubation was nearly complete, and it was with difficulty that I succeeded in saving two good specimens and the broken shell of the third. I did not succeed in securing the male, but an hour before in another piece of woods half a mile distant I had shot by mistake another male of this species, which was also a surprise, as I had found but two of this species during ten years' collecting in this County, and they were both male birds, taken May 10, 1882, and May 11, 1883, and not over ten rods apart. I had come to the conclusion that they were to be found here only during migration, and rarely then. On leaving the woods after securing this nest, we passed into an old pasture lot or clearing in which were a few small trees left standing, and while digging out a set of four eggs of the Yellow-bellied Sapsucker (*Sphyrapicus varius*) I noticed another pair of *D. cerulea*, and on watching them found they were building a nest in a small basswood, also on the fork of a horizontal limb, about twenty feet from the ground and eight feet out from the trunk. I am so particular in describing the position of these nests, as in 'North American Birds,' Baird, Brewer and Ridgway, Vol. I, p. 236, Audubon is quoted as finding one "placed in the forks of a low tree or bush, partly pensive, projecting a little above the twigs to which it is attached, and extending below them nearly two inches," while these are placed on the top of the limb, which is from one half to three quarters of an inch in diameter, and the nest does not extend below the centre. The dimensions of the nest are outside two and a half inches across by two inches deep, inside one and seven eighths by one and a quarter inches.

Audubon is also quoted as saying, "The eggs are five in number, of a pure white with a few reddish spots about the larger end," while these are bluish white with a wreath of reddish brown and lilac spots about the larger end, and small brown dots over the whole egg. The dimensions of the two saved are .70 X .52 and .71 X .52 inches. I sent the male and female *D. cerulea* to Dr. A. K. Fisher, of Washington. On June 23 I secured the second nest and eggs, also the female, but did not succeed in finding the male. The nest contained three eggs, also one egg of the Cowbird. These eggs are not as large as the first, measuring only .64 X .50, .63 X .49, .64 X .50 inches. The general color is the same, but the wreath about the large end is not as distinct. The nests are made of the fibre of the thistle and sparingly covered with lichens, and lined with a brown hair-like substance that I do not know the name of. On June 30 I found another nest in a piece of woods about one mile from where I took the others, but it was too high to be secured, and from the action of the female I concluded it contained young. On July 4 I secured three adult birds, one male and two females, also three young; all but one female were taken within twenty rods of where I secured the two nests and eggs. One female and two young were sent to Dr. A. K. Fisher, and one male and female and one young were sent to the Smithsonian Institution. July 7 I visited the same place and saw another brood of three young which seemed to be able to fly as well as the adults, although the old birds were feeding them; I did not try to secure any of these. July 14 I could not find one of this species at the same place. July 21 I found a late brood, but secured only the adult female and one young which I sent to the American Museum of Natural History, New York City, at the request of Mr. J. A. Allen. All the young of this species taken resemble the adult female with the exception that they have yellowish downy feathers on the breast and edge of wing.

On July 28 I again visited the same place, but did not see a Blue Warbler and came to the conclusion that they had moved southward.

In 'North American Birds' Dr. Brewer says that he has been informed that this species "abounds and breeds in the vicinity of Niagara Falls," although he does not say that any nests or eggs were secured, and as he also says "little is known of its breeding habits," I have here been more explicit in regard to my observations than I otherwise should have been.—J. L. DAVISON, Lockport, Niagara County, N. Y.

Bird News from Central New York.

Dendroica caerulescens. CERULEAN WARBLER.—June 24, 1898, Mr. Maxon found these birds to the number of 25 or more inhabiting a piece of woods about five miles south of Oneida. He secured three specimens. In June, 1899, he found them in the same place and took two more. We had one previous record from Clinton.

Egbert Bagg, Utica, N.Y.
Auk, XVII, April, 1900, p. 178.

*Notes on the birds of Madison County, New York,
with especial reference to Embury's recent list.*

24. *Dendroica rara*. CERULEAN WARBLER.—"Rare summer resident," etc. There are earlier records than Mr. Embury's. See *Auk*, XVII, 178, 1900, where is recorded the discovery of a colony on the Stockbridge West Hill. I have often visited this colony. As late as July 22 (1902) many of the birds were still in song. Mr. Miller has taken a single specimen at Peterboro.

By William R. Maxon.

Auk, XX, July, 1903, p. 265

Notes from Western New York.
Maurice C. Blake, Hanover, N.H.

Dendroica cerulea.—Mr. F. T. Antes and I observed a male of this species at Canandaigua, May 14, 1906. Though this warbler breeds locally in neighboring counties, I believe this is the first Ontario County record. I observed two at Victor, Ontario County, on May 22, 1906.

Auk, 24, Apr., 1907, p. 225.

NESTING HABITS OF THE CERULEAN WARBLER.

BY W. E. SAUNDERS.

SOME years ago, while on a short walking trip through the western peninsula of Ontario, I located a woods in which the Cerulean Warbler (*Dendroica cerulea*) was exceedingly common. Ever since, I have wished for an opportunity to visit that locality in early May that I might make their acquaintance in the house-keeping season and perhaps get a few nests. Near London, only 60 or 70 miles farther east, they average uncommon, and near Toronto they are seldom seen.

On May 16, 1900, I got back near the place and in a day's hunt succeeded in finding two pieces of woodland where they were common, and though there appeared to be as yet no sign of nest

ing we noticed a female, leisurely feeding and hopping around in a tree in front of us. By the time we were ready to move, she had covered two or three trees so often that we felt sure her nest was in one of them and we got on opposite sides of the clump of trees to watch her. Then it began to dawn on us why we had met with so little success in the morning, for it kept us both busy to keep track of the little greenish bird traveling high up among the green leaves. However, after a half hour or so she disappeared in a place where one watcher would not have been able to guess at her whereabouts, but to the other, she was easy, and two steps to one side revealed the nest. A climb of forty-five feet in a leaning basswood reached the nest, which contained one egg only, but as we were not very sanguine of finding more we took it.

We then decided to hunt together, and the difficulty was solved.

haps still room for one of a bird which was taken at Worcester, Massachusetts, May 23, 1891, by a young son of Mr. Charles K. Reed, the well-known taxidermist. Mr. Reed mounted the bird and afterwards sold it to Mr. John E. Thayer in whose collection, at Lancaster, Massachusetts, it has been for some time. A few months since, Mr. Thayer, learning that I was anxious to obtain a New England example of the Barn Owl, most generously sent me this Worcester bird with his compliments. The specimen, a male, is well mounted and in fine condition in every way.

THE CERULEAN WARBLER (*DENDROICA CERULEA*) AS A SUMMER RESIDENT IN
BALTIMORE COUNTY, MARYLAND.

BY FRANK COATES KIRKWOOD.

As a live bird the Cerulean Warbler was unknown to me until June 11, 1899. That year they were noted until August 15, and a nest supposed to be of this species was found. In 1900 it was carefully watched for and recorded from April 29 to August 19, and a nest with four eggs was collected on June 10.

Ravenshurst farm, where I have spent nearly every Sunday and occasionally other days for the last twelve years, is situated at the head of Dulany's Valley in Baltimore County and is thirteen miles N. N. E. from the centre of Baltimore City. The house stands at an elevation of 480 feet above tide-water and a sharp declivity in front of it gives an uninterrupted view of the entire length of the valley (lowest point 170 feet above tide), with Towson, seven miles from Baltimore City, on the horizon at the other end, on an elevation of about 500 feet. Near Towson, at a similar elevation, is the point, where Mr. J. Hall Pleasants on July 14, 1893, collected the adult and immature male birds recorded in "The Auk" (Vol. X, 1893, p. 372). This remained as our only Maryland Record until the present.

My experience during the last two summers leads me to suppose that the species has a decided preference for high open

woods clear of underbrush, and if this is so it would account for the scarceness of the species. Between our orchard and the pike, extending a considerable distance, is a strip of original growth timber, about 150 feet wide, from which the underbrush has been cleared, while across the pike is a large tract of woods. On the other side of the orchard, about one eighth of a mile distant from the strip mentioned, is another piece of woods from which the hogs have cleared the underbrush. This also has considerable woods in its original state, on one side. It is in these two pieces of woods that the birds have summered. The trees are principally chestnuts, with oaks, hickorys, tulip trees, etc.

The following items are taken verbatim from my pocket notebook and were made with the aid of a strong field-glass. Had the birds been round previously I assuredly would have known it, but my first note is as follows:

June 4, 1899. In gate woods, hear a strange warbler song but fail to see bird.

June 11. In company with Mr. F. A. Saunders, who is visiting me, the strange song of the 4th is identified as that of the Cerulean. We heard it in the woods west of the pike and in response to our 'squeaking' the bird came within twenty-five feet of us, perching on a bare branch. We then kept quiet and it leisurely hunted the lower branches of the tree for about ten minutes, occasionally singing. Subsequently we heard the song of this species in three or four different parts of the woods, but whether the same individual or not we could not say.

June 18. One singing in gate woods. It seemed to prefer the bare or dead twigs of the lower branches of the trees some twenty-five to forty feet up. During the forenoon it sang incessantly with its feathers fluffed out. From 4.20 P. M. to dusk heard it off and on. Once while it was singing some short distance off I was watching another sitting silent on a dead twig with its feathers fluffed out.

During the forenoon in the gate woods a female Redstart was observed pulling material out of a nest saddled on a chestnut branch. Investigation showed a warbler's nest of some kind ready for eggs, but it was not a Redstart's, and no other bird was

seen near it though it was watched for a long time. It was placed on lowest branch but one, five feet out from tree and thirty-five feet, eight inches up from ground. It was completely gone on 25th.

June 25. See one singing in different trees in gate woods. Once it dressed its feathers, sitting on a dead twig and singing all the time, otherwise it was hunting slowly like a Worm-eating Warbler. It would sing for about twenty minutes and then fly off, and we could not locate it until it started to sing again. On one occasion while watching it singing, heard another about one hundred yards off.

July 2. Singing as I enter gate woods; it stopped at 10.18 A. M., flew to another tree, sang a few times and stopped. Commenced again at 11.04 and sang eight minutes, when it came down from branches to a nearly rotten stump not two feet high and hunted round it for several minutes, then flying off. Sings again from 11.31 for ten minutes (12.15 to 12.45 in house for dinner). Do not hear it again until 5.45 P. M., it then sings right along to 6.15, when I go to supper.

July 3. At 9.15 A. M. sings several times; 9.25, sings four or five times, 9.31 started and sings nineteen minutes. It then flies from top of one high chestnut to another and chased a Goldfinch out of sight. A few minutes later it was singing again and kept on incessantly, first in one tree then in another until I get a stiff neck and leave at 11 A. M.

July 4. Sang from 9.21 A. M. for eighteen minutes, and from 9.59 for seven minutes. Do not hear it again until 7.27 P. M., when it sang for twelve minutes; later it sang off and on until 7.32, when I heard last song for the day.

July 9. See one, with only slight indications of a collar on either side. Singing off and on all day in gate woods.

July 16. 9.46 A. M., sang for about twenty minutes; rather more sluggish than usual.

July 27. Singing in pig woods.

July 30. One sings eight to ten times in woods west of pike near point where it was first seen on June 11.

Aug. 10. One singing in pig woods.

Aug. 13. One singing in pig woods.

- Aug. 15. One singing in gate woods.
 Apr. 29, 1900. One singing on bare branch of apple tree; finally flies into pig woods.
 May 6. Watch one singing in pig woods and hear another at same time; later hear one in gate woods where it is also singing in afternoon.
 May 7. One singing at house this morning.
 May 13. Two singing at once in pig woods. See pair, male and female, in gate woods.
 May 20. Forenoon singing in pig woods; afternoon singing in gate woods.
 May 27. While watching male singing as it flies after female in pig woods, hear another singing in the distance.
 June 3. Forenoon singing in pig woods; about noon singing in gate woods; afternoon don't hear it at all.
 June 4. One singing in pig woods.
 June 10. Hear one singing in gate woods and in a minute or two see it chasing a female Redstart round top of a low oak, jerking out its song all the time. Happening to look directly overhead, see nest on lowest branch of a tulip tree, and going to one side see female on nest; 3 P. M., one singing in gate woods; a little later one singing in pig woods.
 June 17. One singing in pig woods.
 June 18. One singing in pig woods.
 June 20. Two singing at once, nearly all day, in pig woods.
 July 15. Watch one singing in pig woods and hear another at same time.
 Aug. 19. See two or three and hear two or three others singing immature or imperfect (?) songs in pig woods.

I have given the above memoranda verbatim as made at the time and it will be noted that only twice was the species found in the dense woods. This does not prove that they may not have been there often enough, only that I did not observe them there, while I was almost certain to find them in either one or other of the two open pieces.

In habits this bird considerably resembles the Worm-eating Warbler, being rather slow and sedate in its movements. It will also sit for long periods motionless and silent, on a dead twig

under the branches proper of the high trees. Here it also to a considerable extent does its hunting. Its song is so distinctive that after being once recognized it can never be confused with that of any other bird. Although recognizing the impossibility of portraying bird songs, I venture on the following which, however, is

—ΛΛΛ—AAA— — —
 we ch ch ch ch we je je je

not very satisfactory. It also gives its song in a low tone as if it whispered it, and unless the bird is carefully watched the observer might be led to believe that he heard a second bird singing in the distance. I have watched a bird sing thus between each regular song, at other times it would not give it at all, or only occasionally, while on two or three occasions I heard it given for quite a while to the exclusion of the regular song, and quite often have heard it given two or three or even more times in succession between regular songs.

The nest found on June 18, 1899, could not at that time be definitely stated to be a Cerulean's, as only the Redstart that demolished it was seen at it. It was, however, an exact counterpart of the nest collected on June 10, 1900. This latter nest contained four eggs, very slightly incubated. Their ground color is a pale grayish with a slight bluish cast, marked with pale reddish specks and spots, nearly all being on the larger end. One egg, however, has also some fairly large blotches of a much lighter reddish round the girth. Underlying this on the larger ends of all are lilac spots of different shades.

The nest is made of brown bark fibre, with some fine grass stems among it, and is finished inside with a few black horse-hairs. Outside it is finished with gray shreds of bark, spider web, and a few small fragments of newspaper that had been water-soaked. It measured, inside $1\frac{3}{4}$ inches across by 1 inch deep; outside $2\frac{1}{2}$ inches across. As the branch sloped, one part of the rim is within $\frac{1}{4}$ of an inch of it, while the opposite part is $1\frac{3}{4}$ inches above it, the material comes down on one side of branch to $2\frac{1}{4}$ inches below the rim. On this side a tiny twig arches out from branch and extending to the rim is imbedded in the nest, and the leaves which grew from its top shaded the nest. On the other side the material merely came down to the branch, which meas-

ured one inch in diameter at this point. Just clear of the nest on the lower side a twig one half an inch in diameter slopes away from the nest but does not support it in any way. The end of the branch was broken off, as often occurs with the tulip tree, and the nest was placed near this end, 15 feet out from the tree and 48 feet 6 inches up from ground. There was but one branch growing lower on this tree and it was on the other side, so that there was a clear space between the nest and the ground. The nest would answer in every particular for the original of the one described on page 360 of the October, 1900, number of 'The Auk,' collected in western Ontario by Mr. W. E. Saunders, whose brother was with me when I first identified this species.

Auk, XVII, April, 1901, p. 137-142

TWO RACES OF THE VARIED THRUSH.

BY JOSEPH GRINNELL.

Hesperocichla nævia nævia (Gmelin) Ridgway.

Turdus nævus GMELIN, Systema Naturæ, Tom. I, 1788, p. 847.

Hesperocichla nævia RIDGWAY, Proc. U. S. Nat. Mus., Vol. III, 1880, p. 166.

Type, ♀ ad., No. 1222, coll. J. G., Sitka, Alaska, July 2, 1896; collected by J. Grinnell.

Description.—Back, scapulars and rump bistre; upper tail-coverts brightening into vandyke brown; upper surface of tail dark Prout's brown; top of head and cervix dark mummy brown abruptly outlined posteriorly against the color of back. Dark parts of outer surface of closed wing seal brown; tips of greater and middle wing-coverts, and spot composed of outer webs of primaries near their base, tawny ochraceous; edging of outer webs of terminal third of primaries and secondaries hazel. Foreneck tawny, brightest laterally on malar region; lores and auriculars same as top of head, perhaps slightly grayish; feathers of auriculars with narrow ochraceous shaft-streaks; longitudinal stripe from above eye along upper margin of auriculars, and spot on lower eyelid ochraceous; complete pectoral band raw umber; remainder of under parts posterior from pectoral band tawny ochraceous; feathers of sides with crescent-shaped tips of light sepia; flanks nearly uniform light sepia with a perceptible raw umber tinge; middle of belly white with a faint buffy

Nesting of the Cerulean Warbler (*Dendroica cerulea*) in Beaver County, Pennsylvania.—This species, reported to be exceedingly rare in most sections, is here common as a migrant and tolerably common as a summer resident. (But compare, in this connection, Wheaton, *per* Coues, Birds of the Northwest, p. 233.) It has not as yet been found in Butler and Armstrong Counties. In the breeding season it is partial to high, open, oak woods, as well as to low, damp, beech woodland, in which places I often see five or six pairs in the course of as many hours' walk. Inhabiting as it does the terminal foliage of the highest forest trees, it would easily be overlooked even by the most careful of observers, were it not for the peculiar notes of the male, which are readily distinguished from those of any other Warbler, and which suffice to disclose its presence. I can scarcely describe this song, beyond saying that it is a genuine Warbler song, and that its last notes somewhat resemble the 'drumming' of our locust (*Cicada*); but once heard it is not apt to be forgotten.

It was with these facts in mind that on May 24, 1890, I determined to put my previous experience to a test in finding the nest of the species. Proceeding to a patch of woodland in which I had previously located two pairs, I quickly discovered one of the males, and in the course of half an hour his mate appeared, whereupon I transferred my attention to her. After an hour's patient watching she at last was seen to go to her nest, which was thus discovered to be saddled on the fork of a horizontal branch of a certain kind of tree, far out from the trunk, and fully 50 feet from the ground. The only way it could possibly be reached was by climbing a tall, slim butternut tree adjacent, thus enabling one to scoop out the eggs by means of a net attached to the end of a pole. However, on May 26 the plan was successfully carried out, though not without considerable risk; in addition the nest was secured and the female bird shot, thus putting the identification beyond question. The male came about at the time, but apparently manifested little concern.

The nest was a small, neat structure, tightly fastened to its branch, and composed mainly of weed stalks and strips of bark, though the outside, whose texture was rendered firmer by means of a plentiful supply of saliva and cobwebs, presented a decidedly white appearance, owing to the color of the stems composing it as well as to the bits of paper and hornets' nest added. The lining was simply finer weed stalks. It contained three eggs of the Warbler and one of the Cowbird, all fresh, so that the set was probably incomplete. In color they almost exactly resemble a set of American Redstarts in my collection, differing only in being slightly shorter. The ground-color is white, with a rather decided suggestion of bluish-green, spotted over, in the style of most Warblers, with reddish-brown, the spots tending to aggregate at and around the larger end.

The eggs, the nest, and the female bird are now in the collection of Dr. C. Hart Merriam of Washington, D. C.—W. E. CLYDE TODD, Beaver, Beaver County, Pa. *Auk*, 8, April, 1891, p. 234-237

445. *The Cerulean Warbler.* By J. H. Langille. *Ibid.*, pp. 191, 192.
—Description of habits, nest and eggs, as observed near Buffalo, N. Y.

This appears to cover all cases, and, unless something different is shown, it seems to me to be fair to consider that, in regard to the spotting pigments, a single bird has but one color, which may be varied according to the way in which it is deposited on the shell, — either with respect to the thickness or position in depth from surface of the deposit, — and even may itself vary temporarily among birds of the same species, owing to a temporary condition of the system.

In regard to the ground-tint of the egg, which in many cases is colored, it can hardly be accounted for on the same principle. Of course those eggs which have a white or even a soiled ground-color offer no objection; neither do those which have a colored ground but are unspotted, as we might justly say that the remarks in regard to there being but one coloring matter still apply. But there are certain eggs which are spotted on a colored ground, and which make it necessary to account for the ground-color in some different way, or else to widen the theory, and to allow these few cases to enter as exceptions. As to which of these two hypotheses is more apt to be the correct one, I am not as yet prepared to hazard an opinion, but am at present pursuing a course of chemical experiments by which I hope to settle the question.

NEST AND EGGS OF THE CERULEAN WARBLER.

BY J. A. ALLEN.

THE Museum of Comparative Zoölogy has recently received a nest and four eggs of the Cerulean Warbler (*Dendroica cerulea*), collected at East Penfield, Munroe County, N. Y., June 7, 1878, by Mr. P. S. Fuller. The female was shot as she left the eggs, which were nearly fresh. The nest was placed in the fork of a small ash-tree, about twenty-five feet from the ground. It is neatly and compactly built, consisting externally of fine dry grasses of an ashen tint, bound firmly together with spider's silk, to which are affixed a few bits of whitish lichen; it is lined with strips of bark and fine grasses, of a reddish-brown color. The nest is thus gray externally and brown within. It measures as follows: inside diameter, 2

inches; outside diameter, 2.50 inches; depth inside, 1.40; external depth, 1.75. The eggs vary little in size or color, and mainly in respect to the size of the blotches. The ground-color is dull creamy-white, thickly covered with rather heavy blotches of reddish-brown. In one egg the blotches are coarse and cover the greater part of the surface; in another the markings are finer, quite evenly diffused, and of a lighter tint; in the other two about two thirds of the surface is covered by the markings. The eggs measure .60 X .47 of an inch.

The Museum has also two other nests of this species. One was taken, with one egg, at Drummondville, Ontario, in June, 1873, and, with the egg, was soon after described by Dr. Brewer (Hist. N. Amer. Birds, Vol. III, p. 505). The other nest was taken at Mount Carmel, Ill., May 16, 1878, by Mr. William Bryant of Boston. It contained four eggs, which are now in his collection. The nest described by Dr. Brewer differs from the Penfield nest in no essential point, except that it is rather slighter, and has a more nearly continuous covering of lichens, with which are mixed small pieces of hornet's nest. The bottom of the nest shows that it was built in the fork of a small branch. The Mount Carmel nest differs from the others in having somewhat thicker walls, thus giving to the structure greater bulk and firmness. Like the others, it is partly covered externally with lichens, which enclose some of the smaller twigs amidst which it is fixed to the upper surface of a small branch. These nests agree as closely in their general structure, as well as in the material of their composition, as three nests of the same species are often found to do, and differ quite widely from the nests of any other species of the genus known to me. The Penfield and Mount Carmel nests were placed respectively twenty and twenty-five feet from the ground, and the Drummondville nest at a height of fifty feet.

Audubon describes the nest of the Cerulean Warbler as placed in the forks of a low tree or bush, and as being partly pensive, and the eggs as being pure white, with a few reddish spots about the larger end. In the light of present information, Audubon's description is evidently erroneous in nearly every particular. The only other description of the nest and eggs of this species is that given by Dr. Brewer, as already stated.

Dr. Brewer describes the egg as somewhat similar in its general appearance to the eggs of the Yellow Warbler (*D. aestiva*), but as be-

ing smaller, with the ground-color of a different shade of greenish-white. On calling Dr. Brewer's attention to the discrepancy between his description and the set of eggs above described, he was led to re-examine the subject, and also to compare his egg with the set obtained by Mr. Bryant. As a result, he writes me that his egg corresponds exactly with those obtained at Mount Carmel. He further states that while they seem to resemble the eggs of *D. aestiva*, a comparison shows that while the spots on the eggs of the last-named species are "olivaceous-brown," those on the eggs of *D. cerulea* are "decidedly red-brown." He also still further observes, "In my egg and in Mr. Bryant's the ground-color is very conspicuous, the spots sparse. In yours the spots are large and confluent, obscuring all the ground-color." In the eggs collected at Penfield the blotches are probably exceptionally large and heavy, but the differences between these eggs and the others are not greater than occur not uncommonly between different sets of eggs in most species of birds that lay spotted eggs. There consequently appears to be no reason for doubting the authenticity of either of the sets of eggs here attributed to *D. cerulea*, which in two of the instances at least were identified by the capture of the parent bird.

Bull. N. O. C. 4, Jan., 1879, p. 25-27.

coast, like certain other species of its locality, finds its way around the Alleghany Mountains for a short distance, and is very common throughout the Summer in west-

~~Prospertus. Two birds shot in the summer~~

for that species to be breeding, the 24th of July. Mentioning this circumstance to J. N. Stannis, he remarked that he was glad I found it, for he once found one similarly situated but had never been able to convince anybody of the fact. It was not in such situations as I have usually found the Yellow-bills, but the bird was very tame and demonstrative and I could not be mistaken in the species.

GREAT WHITE EGRET (*Herodias alba egretta*).—One of the neighbors procured specimen August 11th, nearly two miles from the seashore. It was following up a mill stream and he shot it from his door as it flew past. It was pure white, in young plumage, a longlegged, long-necked, sifty looking bird. The same person shot one of these birds in 1878, the 2d of August. These are the only birds of the species that I ever saw.—*J. N. Clark, Old Saybrook, Ct.*

RED-SHOULDERED HAWK.—I captured a beautiful specimen of a Red-shouldered

vine, thus giving the inside a rich brown appearance in contrast with the gray exterior.

The eggs, 4 or 5, some .60×.47, are grayish or greenish white, pretty well spotted, or specked, or even blotched, especially about the large end, with brown and deep lilac. They do not possess that delicate appearance common to the oological gems of most of the Warblers.—*J. H.*

Langille, Buffalo, N. Y.
O. & O. VII. Dec. 15, 1882. p. 190-191.

nest, and has the sharp chipping alarm note common to the family. The nest is saddled on a horizontal limb of considerable size, some distance from the tree, and some forty or fifty feet from the ground. Small, and very neatly and compactly built, somewhat after the style of the Redstart, it consists outwardly of fine dried grasses, bits of wasp's nests and gray lichen, and more especially of old and weathered woody fibres, making it look quite gray and waspy; while the lining is fine dried grasses, or shreds of the wild grape-

The Cærulean Warbler.

I discharge both loads from my double-barrel and bring down a pair of Warblers, male and female, from the top of a tall maple. They are fine specimens of the *Dendroica cærulea*. Have they just dropped down from the skies, and brought the pure azure with them? Except the dusky wings and tail, dark wing-crests and centers of many of the feathers, and white underparts, the epithet *Cærulean*, sky-blue, is certainly applicable to the male, particularly to his head, back, and collar just above the breast. Excepting her lighter markings, less dusky wings and tail, missing collar, and greenish tint over the head and back, the female is the same as the male. This species has the streaks along the sides, and the white marks in the outer tail-feathers, in common with the rest of the *Dendroica*.

The Cærulean Warbler, apparently belonging to the Mississippi valley, and scarcely a casual visitor on the Atlantic

coast, like certain other species of its locality, finds its way around the Alleghany Mountains for a short distance, and is very common throughout the Summer in western New York. Indeed it is not uncommon as a Summer resident in the central parts of the State. I have had every opportunity of observing its habits; and, as no writer has given it a full record, I bear it a special accountability.

It is a bird of the woods, everywhere associated with the beautiful tall forests of the more northern counties of Western New York, sometimes found in the open woods of pasture-lands, and quite partial to hardwood trees. In its flitting motions in search of insect-prey, and in the jerking curves of its more prolonged flight, as also in structure, it is a genuine Wood Warbler, and keeps, for the most part, to what Thoreau calls "the upper story" of its sylvan domain. Its song, which is frequent, and may be heard for some distance, may be imitated by the syllables rheet, rheet, rheet, rheet, ridi, idi, e-e-e-e-e-e-e; beginning with several soft, warbling notes, and ending in a rather prolonged but quite musical squeak. The latter and more rapid part of the strain, which is given in the upward slide, approaches an insect quality of tone which is more or less peculiar to all blue Warblers. This song is so common here as to be a universal characteristic of our tall forests.

The bird is shy when started from the nest, and has the sharp chipping alarm note common to the family. The nest is saddled on a horizontal limb of considerable size, some distance from the tree, and some forty or fifty feet from the ground. Small, and very neatly and compactly built, somewhat after the style of the Redstart, it consists outwardly of fine dried grasses, bits of wasp's nests and gray lichen, and more especially of old and weathered woody fibres, making it look quite gray and waspy; while the lining is fine dried grasses, or shreds of the wild grape-

vine, thus giving the inside a rich brown appearance in contrast with the gray exterior.

The eggs, 4 or 5, some .60×.47, are grayish or greenish white, pretty well spotted, or specked, or even blotched, especially about the large end, with brown and deep lilac. They do not possess that delicate appearance common to the oological gems of most of the Warblers.—J. H.

Langille, Buffalo, N. Y.
O. & G. Vol. VII, Dec. 15, 1882, p. 190-191.

Nesting of the Cerulean Warbler.

On May 19, 1889, while going through the woods in search of nests, I happened to see a small nest situated in a tree about forty-five feet high. Thinking from its appearance it must be the nest of some warbler I strapped on my climbing irons and went up the tree, and upon reaching the nest I found it to be all completed but contained no eggs, so I left it with the determination of visiting it again.

On the morning of the 25th my father and I went over there, and upon climbing the tree I found a Cerulean Warbler (*Dendroica cerulea*) sitting on the nest. When she left the nest I found it contained five fresh eggs, which I safely packed and sent down on a string which I had for the purpose. I then sawed off the limb and sent down the nest.

While getting the eggs and nest both the ♂ and ♀ of the birds were close around, sometimes coming within five or six feet of me. The nest was situated in a beech tree forty-six feet high and twelve feet from the body of the tree. It is saddled on the limb and is composed of fine strips of the inner bark of trees with a few strips of grape-vine bark, and having a few pieces of a kind of fungus fastened to the outside and is lined with a fine vegetable substance very much resembling red hair.

The eggs are of a greenish-white profusely spotted with small blotches and dots of light reddish-brown and lilac, forming a ring around the larger end, and with blotches of light reddish brown distributed over the entire surface. They measure .67 x .51, .65 x .50, .66 v. 49, .65 x .51, and .65 x .50.

E. W. Durfee.

Wayne County, Mich.

[Since writing the above Mr. Durfee took another nest of this species, containing four fresh eggs. He found them on June 16, 1889, in Wayne County, Michigan, and shot the ♀ parent bird, so there can be no question as to the identification. The nest, eggs, and ♀ skin are now before me and may be thus described:

Nest in maple tree, fifty feet from the ground, and ten feet from the trunk of the tree. Saddled on limb of fork. Cup-shaped, and composed of plant fibres and strips of fine bark; lined with grape-vine bark. Outside depth, 1.30; outside diameter, 2.45; inside depth, 1.20; inside diameter, 1.70. ♀ shot and skin with nest and eggs. Four eggs, fresh. Greenish-white, spotted with russet and burnt umber, chiefly near the larger ends: .65 x .51; .66 x .52; .64 x .51; .66 x .51. — J. P. N.]

Cerulean Warbler.

On the 19th of June I took a set of four eggs and nest of this rare Warbler. The nest was built in an oak tree forty-five feet from the ground and six feet out on a small limb, and is made of very fine twigs and grasses and lined with grass and horse hair, the outside stuccoed with lichens held in place by spider webs. Dimensions of nest, external depth $1\frac{7}{8}$ inches, width $2\frac{3}{8}$; internal depth 1 inch, width 2, 1-16. The eggs are a light cream, spotted and blotched with various shades of brown and lilac over the entire egg, forming a wreath at the large end; three eggs measure .65 x .50, and one .60 x .50.

W. A. Davidson.

Detroit, Mich.

O. & O. Vol. 17, Sept. 1892 p. 137

The Cærulean Warbler.

(*Dendroeca cærulea*.)

I.

The Cærulean or Blue Warbler, as it is sometimes called, is perhaps as abundant in the White Water Valley of Southeastern Indiana as anywhere within its range. Its distribution is peculiar, being recorded from the Atlantic coast westward into Eastern Kansas, and from the Gulf of Mexico northward into the Province of Ontario (Hamilton) and Minnesota. It appears in greatest numbers, and its range extends farthest north, in the Mississippi Valley, and its breeding range may, practically, be said to be from the Ohio Valley northward. The Cærulean Warblers reach this latitude about April 20. They are found more frequently along the river valleys and upon the hillsides than upon the upland; they prefer the more open woodland, especially that in which the prevailing timber is sugar-maple, elm and linden. They are not gregarious and where found appear to be evenly distributed. They are seldom found nearer the ground than twenty feet, ranging from this height to the tops of the tallest trees. They are among the most common of our woodland birds, equalling in numbers the Redstart and Golden-crowned Thrush. Their food includes almost all the insects which frequent the trunks, branches and foliage of trees, as well as many species of day flying insects which flit about among the tree-tops. When high in the trees they may be easily mistaken for Flycatchers, and when lower down, among the larger branches, their habits remind one of the Titmouse and Creeper.

Upon the arrival of the Cærulean Warblers they are in full song, the song reminding me somewhat of that of the Golden-winged Warbler, (*Helminthophaga*

chrysoptera.) The melody is interrupted, or broken, and may perhaps best be represented by *zee-zee-zee-zeeet*, with a gradual rise in tone from the beginning to the end. While foraging among the smaller branches they may frequently be observed to stop and give utterance to this strange song, which is also nearly always uttered just before flying from one tree to another. I do not remember to have heard this song while the bird was creeping among the larger branches or upon the trunk of a tree; in such instances the note is similar to that of the female and may be expressed by *tehep*: the sound recalls to my mind that made by some persons by a peculiar smacking of the lips. The males arrive two or three days before the females, and for the succeeding two weeks outnumber the latter by about twenty to one. Occasionally birds of the previous year are taken, in which the beautiful blue of the male is subdued or replaced by green, sometimes quite dark, and the white parts are tinged with dirty yellow. In from two to three weeks after their arrival, they begin love making and soon after they commence the construction of their nests. The nest is placed in the fork of a limb at some distance from the body and at from 25 to 50 feet from the ground. I have seen several nests being built, but have never taken one. The female does the greater part, if not all, the work of construction, while her more gifted mate sings his rattling song from some neighboring maple tree. All through the Summer, early in the morning and late in the evening, the song of the "Blue" Warbler is a prominent feature in the sylvan choir.

When the young are able to fly, the whole family forage together and for some time at least maintain the family group unbroken. I am not prepared to say whether more than one brood is reared in a year, but I shall not be surprised to find that to be, at least occasionally, the case. Early in August these pleasant little sojourners

days before I again visited the locality, and with a good glass I scanned each and every branch but no hanging nest; but on a horizontal limb about sixty-five feet up and about twelve feet from the trunk, and where the limb forked out, I thought I noticed an undue bulging of the limb and decided to investigate; so after considerable hard work in the way of shinning I reached the suspicious limb, and way out on the end I spied a tiny nest containing two eggs, but no bird in sight, nor did it show up. Not being prepared to secure the nest, and wishing a full set, I left.

Four days later I returned with a long clothes-line, a chalk line, large jack-knife and some cotton, also a younger brother to help. After another hard shin, I reached the branch and begun operations by first wrapping and tying one end of the clothes-line around the limb containing the nest and about twenty inches from the trunk; I next passed the line over a limb just above the one holding the nest, bringing the line down and securing to the lower limb; my next move was to fasten a line to the fork containing the nest; much easier said than done, but I finally landed a chalk line with a weight attached in the right place, and lowering the same to the ground my brother attached a short line, which I was about to draw up in position when I thought to myself, How will I tie it away out there? But, no sooner said than done, I had my brother tie a good stout stick about a foot long to the end, and climbing higher up I hauled the rope up and secured it to the limb above; thus I had the limb so it could not fall or turn over after it was cut. I almost forgot to say that all this rumpus proved too much for the bird, who up to the time I threw the chalk line over the limb a couple of inches from her had remained on the nest. She now left the nest, hopping all round it and continually pecking at the chalk line and scolding like a Wren or Vireo.

Nesting of the Cerulean Warbler.

How well do I remember finding my first Cerulean Warblers' nest.

It came about in this manner: One pleasant day in May, 1890, while out collecting skins at Greenwood, a suburb of St. Louis, on the Missouri Pacific Railroad, and about one half mile from my home, and while prying around in a small but beautiful piece of forest through which winds a small creek which goes by the name of the river Des Perces, pronounced De Pere, I spied a small bird flitting about in a tall but slender sycamore. On first appearance I took the tiny bird to be a Vireo of some species, and sat down to watch its movements for awhile before shooting. Finally it disappeared, and I had just begun to be vexed at such stupidity in allowing the bird to escape, when it made its appearance again, and with, I thought, something in its mouth; but at such a great height I was not sure, so I decided to wait awhile, and was rewarded with unmistakable signs of nest building. As I could see nothing of the nest, I concluded that the nest must be just begun, and so I left, intending to visit the tree again in about a week; but it was ten

Dendroica pennsylvanica.

1889

May
June

B. 11² - 14² - 16¹² - 17⁴ - 30⁶ - 1889 43¹ - 7² - 9² - 15² - 16⁴ - 17¹² - 19³ - 29² - 30² - 31² 1890
 3² 1889 1² - 10² - 12² - 13² - 14² - 21² - 24² - 25² 1890

14² 20² 34² 42² 63² 73² 12² 15² 17² 18² 19² 21² 22² Concord 1892

7² 9² 10² 11² 1894 22² 1897 1² 2² 4² 5² 7² 10² 12² 13² 21² 22² 23² 25² 29² Concord 1898

July 6² 1890 1² - 4² - 5² - 7² - 11² - 17² - 18² - Concord 1892

5² - 6² - 13² - 14² - 18² - 17² - 29² (juv. 1st yr) 30² Concord 1893

25² 1894 31² 1891

Aug. 14¹ (ant) 20² (Buttrick's class) 28² Concord 1892. 4¹ juv. - 20¹ juv. 21¹ juv. Concord 1893.
 12¹ (ant) 12¹ (juv) 1894

Sept. 7² (ad.) 9² Concord 1892. 3² (ad. 2 Bally) 1² juv. (Hill) Concord 1893.

May 20¹ (ad.) 23¹ 1891. 9² 7² 1893

4² - 6² - 11² - 12² - 13² - 14² - 15² - 16² - 17² - 18² - 19² - 20² - 21² - 24² - 25² - 26² - 29² - 30² - 31² Concord 1892

10² - 11² - 12² - 13² - 14² - 15² - 16² - 17² - 18² - 20² - 21² - 22² - 23² - 25² - 26² - 27² - 28² - 29² - 30² Concord 1893

3² - 4² - 5² - 6² - 12² - 13² - 14² - 15² - 18² - 19² - 20² - 21² - 26² - 27² - 28² 1894

6² - 7² - 9² - 11² - 12² - 23² 1895
 2² (Hill) 1896 6² 1897 7² 10² 11² 12² 13² 14² 17² 18² 19² 20² 21² 22² 23² 24² 25² 27² 29² 30² 31² Concord 1898

13² 24² 43² 63² 74² 81² 10² 11² 12² 13² 14² 15² 16² 17² 18² 19² 20² 21² 22² 23² 24² 25² 27² 29² 30² Concord 1899

Dendroica pennsylvanica.

1898 Mass.

May 10 Concord. In the swamp by Ball's Hill this morning. [Journ.]

July 2-4 Glendale (in or near), Berkshire Co. Several singing [Journ.]

1901

Apr. 19 Milton. Mr. Harold Bowditch writes me under date of Feb. 2, 1903 in regard to a pair of Chestnut-sided Warblers seen by him in Milton "My note book for April 19th, 1901, says 'pr. of Chestnut-sided Warblers, courting'. They were, as I intimated, in the Cemetery in company with one or more Myrtle Warblers, also my first for the year. Should you care to see it, I can easily bring or send you the note-book itself, which contains my crude attempts with the brush of the male Chestnut-side and of the Myrtle Warbler" M.D. Jan. 3, 1903,

1904

June 22

Concord. - On May 22nd last I found a ♀ Chestnut-sided Warbler sitting on 4 handsomely marked eggs. The nest was in a hole just behind our barn. The young left it on the morning of June 11. On June 22 I found another nest, also in a hole, within fifteen feet of the first. The ♀ Warbler was again sitting on 4 eggs colored & marked almost exactly like those in the first nest. Both sets were peculiar in having the heaviest markings I have ever seen on eggs of this Warbler. These facts seem to me to furnish nearly conclusive evidence that both nests were built by the same bird and hence that the Chestnut-sided Warbler is sometimes double-brooded in the strict sense of that word. Although I was unable to watch the second nest just mentioned through the remainder of the season I have reasons for believing that the eggs were hatched and the young safely reared.

Two broods
reared by
one bird in
a single
season.

Massachusetts.

Dendroica pensylvanica.

1892.

Sept. 7 Concord. Chestnut-sided Warblers 3-1-1. All in birches and maples. One was an adult ♂ with flank stripes as broad and more chestnut as in breeding plumage but with the crown + back green. The others showed no chestnut.

Dendroica pensylvanica.

Concord, Mass.

Nest and four eggs.

1898. This forenoon in a walk from the cabin we found two nests
June 5. of the Chestnut-sided Warbler. "'''''' One of the nests - the
 one with the four eggs- was prettily placed in a green briar
 vine - a very unusual situation. It was wholly unconcealed
 by the foliage for it was supported by two stems of the vine
 which were bare of leaves for some distance above and below
 the nest.

June 7. Spent the forenoon photographing birds' nests exposing
 plates on the Chestnut-sided Warbler's in the greenbriar vine
 "'''''''' The bird was very nervous keeping her head in almost
 constant motion and leaving the nest repeatedly while I was
 at work.

Peterborough, New Hampshire.

1898. Common in thickets bordering woods, stone walls, road-
July 5 sides and brooks. Silent after July 20th (July 6^x, 7^x, 8^x,
 to
Aug. 15. 9^x, 10^x, 11^x, 17²/_x, 20^x). Two young birds, seen July 23rd in a
 mixed flock of Titmice, Kinglets and Warblers, were in full
 autumnal plumage.

Birds of Upper St. John.
Batchelder.

20. *Dendroica pennsylvanica* (Linn.) Bd. CHESTNUT-SIDED WARBLER.—Common.

Bull. N.O.C. 7, April, 1882, p. 109

Birds of Southern New Brunswick.
A. Batchelder.

2. *Dendroica pennsylvanica*. CHESTNUT-SIDED WARBLER.

Bull. N.O.C. 7, April, 1882, p. 104

Ornithological Trip to St. Bruno, P. Q.
May 25, 1885. E. D. Wintle, Montreal.

Chestnut-sided Warbler, scarce.

O. & O. XI, May, 1886, p. 75

Summer Birds of Sudbury, Ont.
A. H. Alberger.

659. Chestnut-sided Warbler. Common.

O. & O. IV, June, 1890, p. 83

Birds of Toronto, Canada,
by James H. Fleming,
Part II, Land Birds,
Auk, XXIV, Jan., 1907, p. 84.

251. *Dendroica pennsylvanica*. CHESTNUT-SIDED WARBLER.—Abundant migrant, May 3 to 29, and August 19 to September 28; rare summer resident; probably breeds.

*If a hill found it by watching ♀. The ♂ was singing
in tree over the nest*

over

Birds of Upper St. John.
Batchelder,

20. *Dendroica pennsylvanica* (Linn.) Bd. CHESTNUT-SIDED WARBLER.—Common.

Bull. N. O. C. 7, April, 1892, p. 100

Birds of Southern New Brunswick.
M. Macdonald.

2. *Dendroica pennsylvanica*. CHESTNUT-SIDED WARBLER.

Bull. N. O. C. 7, April, 1892, p. 104

Ornithological Trip to St. Bruno, P. Q.
May 25, 1885. E. D. Wintle, Montreal.

Chestnut-sided Warbler, scarce.

O. & O. XI, May, 1886, p. 77

SUMMARY OF THE BIRDS OF SASKATCHEWAN, CAN.
A. H. ALDER.

659. Chestnut-sided Warbler. Common.

O. & O. XV, June, 1890, p. 23

Birds of Toronto, Canada,
by James H. Fleming,
Part II, Land Birds,
Auk, XXIV, Jan., 1907, p. 84.

251. *Dendroica pennsylvanica*. CHESTNUT-SIDED WARBLER.—Abundant migrant, May 3 to 29, and August 19 to September 28; rare summer resident; probably breeds.

1888 Chestnut-sided Warbler. S. W. Denton.

May 11, 1888. Saw several & shot two. Heard them make no note. Haunted low bushes near the ground.
May 13. Saw one. May 16. Saw several on Laurant's Hill on or near the ground. May 23. Have seen these birds every time I have been in the woods lately.
May 26. not so plentiful as last week. May 30. Saw ♀ building nest she was pulling fine strips of bark from a grape vine on bank of river. her nest was about half done. in a little berry bush a foot or two from the ground on the side.

Birds of Dead River Region, Me. F. H. C.

24. *Dendroica pennsylvanica*, (Chestnut-sided Warbler). A gentleman in Farmington showed me a nest and four eggs which were undoubtedly of this species. They were taken at Wilton on June 12th. I am positive I heard the song of this species, while riding from Farmington to Strong.

O. & O. XI, Sep. 1886. p. 120

Coast of Maine. T. H. Montgomery, Jr.

659. Chestnut-sided Warbler. The most uncommon species of the family I met with. Shot a fine ♂ at Camden, August 4th, and saw another at the same time which I was unable to get.

Bds. Obs. at Franconia and Bethlehem
N.H. July-August, 1874. J.A. Allen

39. *Dendroica pensylvanica*. Common.

Auk, V. April, 1888. p.154

Birds Obs. at Bridgewater, N.H.
July 12-Sept. 4, 1883. F.H. Allen

Dendroica pensylvanica.—Not common.

Auk, VI. Jan., 1889. p. 77

Birds Obs. at Meltonboro, N.H.
July 21-Aug. 11, 1883. F.H. Allen

Dendroica pensylvanica.—One seen.

Auk, VI. Jan., 1889. p. 78

Rye Beach, N.H. July 23-24 1885.

16. *Dendroica pensylvanica*.—*Obs.*

Birds Obsd. near Holderness, N.H.
June 4-12, '85, and 4-11, '86, W. Faxon

51. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.—Very abundant.

Auk, V. April, 1888. p.150

Bds. Obs. in Franconia, N.H. June 11-21
'86, and June 4-Aug. 1, '87, W. Faxon

63. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.—Common.

Auk, V. April, 1888. p.153

Birds of Hillsboro Co. N.H. June 27, '92
Arthur M. Farmer, Amoskeag, N.H.

Chestnut-sided Warbler, a few noted.

O. & O Vol. 17, Sept. 1892 p. 136

Henry David Thoreau, D.D.

1864

Thoreau's Journal

From 1864 to 1865
 1864 - 1865
 1864 - 1865

At the end of the year, the
 year is found to be
 very much the same as the
 year of 1864. But the
 year of 1865 is found to be
 the same as the year of 1864.
 The year of 1865 is found to be
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 and the year of 1865 is found to be
 the same as the year of 1864.

Henry David Thoreau, D.D.

1865

Thoreau's Journal

1865

1865

1865

A Few Nests Collected at Cornwall, Vt.
Spring-1889. O. H. Parkhill.

Chestnut-sided Warbler (*Dendroica pennsylvanica*). Collected June 6th. The nest, which was in a low swampy place, was three feet from the ground, and contained four fresh eggs.

O. & O. XIV, Oct. 1889 p150

[illegible]

63. *Dendroica pennsylvanica*. CHESTNUT-SIDED WARBLER.—Common in the open spots about the edges of the woods at the base of the mountain, and for a short distance up the slopes.

* 1971, Oct. 1971, 0, 944.

Mass.

Dendroica pennsylvanica

Dr. Samuel Cabot tells me that when he was in college (1832-1835) this Warbler was certainly a very rare species about Cambridge. Indeed for years afterwards it was not common but gradually and steadily increased in numbers. His brother Elliot Cabot found the first known nest (Notes taken after a talk with Dr. Cabot, Jan'y 15-1885.)

49. *Dendroica pensylvanica*. - June 16 E. Mass. 1885.
 Foxston & No. Rutland, Mass. June 13 - 1886.
 10 - 20 *pensylvanica* *caerulea*

Mass (Winchendon)

1887

June 24¹ - 25⁸ - 26⁸

Dend. pensylvanica.

Mass. (near Concord).

1887

May 9⁶ - 10² - 11¹⁰ - 12²⁰ - 13² - 16²⁰ - 21¹ - 23⁸ - 26⁸

June 2² - 4¹ - 7¹

July 7³

Aug. 9² - 10² - 13¹ - 17¹

Dendroica pensylvanica

the young out

Mass. (near Cambridge).

1888

April 29 shot (Achewit, Bowles)

Dendroica pensylvanica

Winchendon, Mass. June, 1888.

May 15² - 17² - 18¹⁰

Birds of Bristol County, Mass.
 F. W. Andros.

Dendroica pensylvanica (Linn.), Chestnut-sided Warbler. Summer resident, tolerably common. Breeds.

O. & O. XII, Sept. 1887 p. 141

Birds Known to Pass Breeding Season
nr. Winchendon, Mass. Wm. Brewster

Dendroica
65. " *pensylvanica*.

Ank, V, Oct., 1888. p.389

Bds. Obs. near Sheffield, Berkshire
Co., Mass. June 17-23, '88. W. Faxon

59. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.—Common,
extending up to the highest summits of the Taconic Mts.

~~9th Dec. 1888. W. Faxon~~

Ank, VI. Jan., 1889. p.46

Bds. Obs. near Graylock Mt. Berkshire
Co. Mass. June 28-July 13. W. Faxon

56. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.—Common
in the mountain valleys, and extending well up on the sides of the
mountains.

Ank, VI. April, 1889. p.103

W. Middlesex Co. Mass.

June 25-30, 1889.

Dendroica pensylvanica

Ashby, Mt Watatic---Common and generally distributed, but
nowhere as numerous as in the eastern part of Middlesex county. A
single male was observed on Mt Watatic at an elevation of about
1000 feet, where it was always to be found singing in ^a the thicket
of mountain maple near some raspberry bushes in which it ^{perhaps} had its
nest.

I have thought the song like that
of the Warbler near Milton.

My dear Mr. Brewster

I think it may
interest you to know that
I looked up the Chestnut-
sided Warbler which I thought
I had seen on April twenty-
second, 1901, and that he
in reality occurred on the
nineteenth of April. Howe
and Allen's record is, I
believe, May first.

Yours very truly

13 Foxcroft House
Cambridge
April third.

Harold Davidson

side and of the Myrtle Warbler.

Yours very truly

12 Stoughton
Monday night.

Dendroica
Milton Mass.
Apr. 19/1901
Dear

book for April
"pr. of Chestnut
courting". They
dated, in the
spring with one
the Warblers also
year. Should
it, I can

send you the
which contains
tempts with

male Chestnut

Harold Davidson

Stoughton, Mass.

Dendroica pensylvanica. CHESTNUT-SIDED WARBLER. Saw a male
at very close range on April 28, 1908, in Stoughton.

Aug 26, Apr-1909, p. 198

Connecticut, June, 1893.

Dendroica pennsylvanica

June 8th 6th 7th 8th 10th } Saybrook
" 13th 19th }
" 21st }
" 22nd 23rd 24th 25th } Andover

Quite as abundant as in E. Mass.
very generally distributed, frequenting
brush-wooded areas & pastures. Short
larks, thrushes, sparrows and other
birds of old woodland as has a
dense undergrowth. Near Andover
abundant. The throat note was
heard & heard and heard notes
were found in the throat which
evidently furnish a pleasing song
near Andover.
A few were seen June 21st near
Andover. They were feeding on the
ground & looking about on the ground
of wooded areas. June 13th several were
seen. One of the throat notes but not
the other notes. The throat note is
the same as the throat note of the
throat note of the throat note.
The throat note is the same as the
throat note of the throat note.

*Notes on Birds Taken near West
Point, N. Y. ... E. A. Mearns.*

5. *Dendroica pennsylvanica*, (Linné) Baird. CHESTNUT-SIDED WARBLER. — A spring female of this species (No. 1437 ♂, May 19, 1877, E. A. M.) seems to have passed by its spring moult, since it is still in the autumnal plumage, except for the appearance of a few black streaks on the back. The plumage is worn and dingy, and exhibits no trace of the chestnut side-stripe.

Bull. N.O.C. 3, April, 1878, p. 71.

*Birds observed in Naval Hospital
Grounds, Brooklyn. G.H. Coues*

29. *Dendroica pennsylvanica*. CHESTNUT-SIDED WARBLER. — Quite rare.

Bull. N.O.C. 4, Jan., 1879, p. 32

*Birds of the Adirondack Region
O.H. Merriam.*

28. *Dendroica pennsylvanica* (Linn.) Baird. CHESTNUT-SIDED WARBLER. — Common. Breeds in the deciduous undergrowth about the lakes and streams, depositing its eggs early in June.

Bull. N.O.C. 6, Oct, 1881, p. 227

*Arrivals of Mig'y Birds, Spring-1886.
Central Park, N. Y. City. A. G. Paine, Jr.*

May 9, *Dendroica pennsylvanica*, (659). Chestnut-sided Warbler.

O. & O. XI. July. 1886. p. 109

*Some of my Best Finds to June 8, 1892.
A. E. Kibbe.*

set of three Chestnut-sided Warbler.

June 8.

I had to do some hard climbing and a great deal of walking to accomplish this.

A. E. Kibbe.

Mayville, N. Y.

O. & O Vol. 17, Sept, 1892 p. 134

*Notes on the Spring Migration of Birds in the
Northern Adirondacks [Lipton], New York [1901].
May 15 to 20.*

Chestnut-sided Warbler. Tolerably common.

E. A. Stedding, Brooklyn, Pa.

Bull. N.O.C. July, 1902, p. 289

Birds of Western North Carolina.
William Brewster.

4

72. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER. -- Generally distributed between 2000 and 4000 feet, but nowhere really numerous. Indeed, I rarely saw more than one or two in any single day. As in New England, they frequented wood edges and openings, especially such as were bordered by thickets of blackberry bushes or hazels. They were also found in rhododendrons. The song was perfectly normal.

Auk, 3, April, 1886. p.174

31. *Dendroica pennsylvanica*.

First plumage: male. Remiges, rectrices, etc., as in spring specimens. Wing-bands white, scarcely edged with yellow, and the general aspect of wing much duller than in fall specimens. Rest of upper parts, sides of head, jugulum, breast and sides, pale cinnamon, brightest on pileum, lighter on throat and sides of head. Feathers of back with central spots of dull black. Abdomen, anal region, and crissum creamy-white. From a specimen in my collection shot at Cambridge, Mass., July 18, 1874. It is not a little remarkable that the wing-markings of this bird are much more nearly like those of adults in spring than of the young in autumn.

Bull. N. O. C., 3, April, 1878. p. 59.

Cherrie, Birds, San Jose, Costa Rica.

15. *Dendroica pennsylvanica*.—In a series of 40 Chestnut-sided Warblers now before me, 11 show the chestnut stripe on the sides; in 6 of these, however, it is only faintly indicated. One of the 40 has the yellow crown of the adult; all have the wing-bands strongly tinged with sulphur yellow, and almost all are bright olive green above.

The first arrival for the fall of 1890 was September 21.

Auk, 8, July, 1891. p. 278-279

Birds of Kalamazoo County, Mich.

Dr. Morris Gibbs,

37. [99.] *Dendroica pensylvanica* (Linn.) Baird.
Chestnut-sided Warbler.—A common species generally, that is during a series of years, but often quite rare for a year or so, and again exceedingly common. In 1875 a great many nests were found, the first eggs being taken here in 1874. Since 1878 very few nests have been taken. The species arrives from April 25 to May 6. I cannot say how late it remains with us but have found it to be a rare bird in the Fall. O. & O. X. Mar. 1885. p. 39

Vernal Migration of Warblers on Wolf River, Outagamie Co., Wisconsin.
F. L. Grunzig

Dendroica pensylvanica (L.) Bd. A small flock arrived May 3, but none were noticed again until May 8, when several others were seen. The number gradually increased, and May 12 it was only exceeded by *Setophaga ruticilla*. May 14 it outnumbered them all; from this date, however, the flocks gradually decreased, although many remained to breed. The first egg was taken June 3. Bull. N. O. C. 3, April. 1883. p. 70.

Mass. Belmont

Dendroica pensylvanica

1888

Length of incubation

June

A nest found June 9 with 2 fresh eggs. Taken June 19 with 4 eggs nearly hatched. Assuming that the 4th egg was laid the morning of June 11 the bird had been sitting just 8 days. These eggs would perhaps have hatched the next, possibly not before the second day. Nest in poplar sapling in hard thicket.

Notes on the *Amniotittidae* of Western Pennsylvania

Dendroica pensylvanica. CHESTNUT-SIDED WARBLER.—An abundant migrant in Beaver County, spring and fall. I have taken and seen immature birds in August (August 18, 1888, and August 24, 1889), which would seem to indicate that it breeds a little farther north. In Butler and Armstrong Counties, however, the case is very different; there, every patch of hazel thicket has its pair of Chestnut-sided Warblers, or, if extensive, its several pairs, the gay and sprightly male ever prominent on its outskirts or on some shrub in its midst, constantly uttering his short but sweetly modulated song. Notwithstanding this clue, their nests are difficult to find; after many vain searches I at last succeeded in finding one (June 3, 1889) containing four highly incubated eggs. Auk, 8, Oct. 1891. p. 378

W. E. Clyde Todd, Beaver Beaver Co. Pa.

The Chestnut-sided Warbler Nesting in Missouri.—Central Illinois is generally considered to be the southernmost limit in the Mississippi Valley of the summer home of this Warbler, and thus far there appears to be no record for southern Iowa. I desire to say, however, that while in Missouri the past June (1892) I observed *D. pensylvanica* on two occasions and under circumstances that point most conclusively to the probability of its nesting in that State. On June 3, while visiting the woods skirting the River Des Peres near St. Louis, in company with Mr. O. Widmann of Old Orchard, Mo., a male was discovered singing in the top of a tree on the edge of a blackberry thicket and to all appearances settled for the season, Mr. Widmann's attention being first directed to it by the peculiarity of its song as a summer resident for that locality.

Later, on the 19th of the month, while riding by wagon in Reynolds County, Mo., from Edge Hill to Middlebrook, and about half way between those points a male and a female were detected by me in the act of copulation, the locality being a tract of country formerly cleared of its timber by charcoal burners, but now growing up with brush. This was in a region about ninety miles south by southwest from St. Louis. Mr. Widmann again saw a male (probably the original bird) in the first locality herein mentioned on June 21, and we were informed by Mr. Philo W. Smith, Jr., of St. Louis, that he had taken as many as six nests of the Chestnut-sided Warbler in one day at Greenwood, a small suburb a few miles west of the city.

In the light of our previous knowledge, the foregoing notes will serve to extend considerably the known breeding range of this bird.—B. F. GAULT, *Glen Ellyn, Du Page Co., Illinois.*

Auk 1X, Oct., 1892. p. 396

1890.]

General Notes.

405

for the Blue Warbler a few rods away, and we seated ourselves about fifteen feet from the tree, determined to see everything that happened. The nest was in a small beech, about thirty feet from the ground, in a crotch made by a short, dead branch with the trunk. It seemed to be a compact, typical Redstart nest, though placed higher than usual—it certainly had nothing to suggest a Chestnut-sided Warbler's nest. It was in such plain view from where we sat that, through our glasses, we could see the fuzz on the heads of the little ones, and see the larger of the two scratch his bill, stroke his feathers, stand up in the nest, and stretch his wing over the edge. When the sun lit up the leaves and the nest in their midst, we could see into the throats of the hungry babies. When the old birds fed them, I saw the yellow patches on the tail of the Redstart as she darted around the nest, and the white breast and yellow crown of the Chestnut-sided Warbler. And in hunting, the Chestnut came within six feet of us, so that we could see the deep chestnut of his sides and the heavy black markings of his cheeks. We watched the birds closely for an hour or more in the morning, two hours in the afternoon, and for a short time just before dark; and each time saw the same singular performance.

The birds fed the young at dangerously short intervals—we feared they would leave the nest dyspeptics for life! And they would have been crammed still more, if it had not been for the time it took the Redstart to drive off the Chestnut, and the delay her attacks caused him; for she had no wish for his kind offices and, as Mrs. Miller remarked, like some other philanthropists that made no difference to him! When she saw him coming with food, before he was anywhere near the tree, she dashed at him with spread tail and resentment in every feather. His long-suffering meekness was philosophical. He flew before her, waited till she had spent her anger and gone off or down in the bushes for an insect, when he slipped up to the nest and fed his charges. It seemed as if she could not bear the sight of him. Again and again she drove him out of the

Was He a Philanthropist?—On the fourth of July, when in the woods looking for the nest of a Black-throated Blue Warbler, my attention was diverted by a Chestnut-sided Warbler. He came hunting over the bushes near me, once flying so low that I caught his image among the waving reflections of the sunlit saplings in the pool at my feet. I traced him to a nest, and was rejoicing over the discovery when, on walking nearer, I was thrown into perplexity by seeing a female Redstart come to feed the young. What could it mean? I dared not believe my eyes. Perhaps, in moving to a better position, I had lost my Chestnut's nest and come upon a Redstart's. Or—could such strange things be? Before I had time to get over my bewilderment, back flew the Chestnut again, feeding the babies as calmly as if to assure me that such things were, whether from precedent or the premises of ornithologists they could be or could not be.

I signalled excitedly to Mrs. Olive Thorne Miller, who was watching

Runt Eggs.

BY EGBERT BAGG, UTICA, NEW YORK.

Reading the Oölogical Editor's notes on "Runt Eggs" in the December, 1887, number of THE ORNITHOLOGIST AND OÖLOGIST, with much interest, I am induced, in the hope of interesting some one else, to record two runt sets which are in my collection.

The first is a set of two eggs of the Chesnut-sided Warbler (*Dendroica pennsylvanica*), collected July 20, 1882, at Holland Patent, N. Y. These eggs measure .54 x .38 and .52 x .37, while the normal size is about .68 x .50.

The second set is, or rather was, a set of three of the Canada Flycatching Warbler (*Myiodytes canadensis*), collected in Wilmurt, N. Y., on June 30, 1886. One of these eggs was broken, hence the "was" above. The remaining two measure .54 x .45 and .50 x .43; the usual size being about .68 x .51. Both these sets are perfect miniatures of normal ones.

In reading these figures, unless very well used to comparing such objects, the difference in size is not appreciated, and as they are rather too small and delicate eggs to try Mr. Hoxie's dust-shot experiments with, I suggest that the reader draw the outline of one of these runts of the correct size, and then draw the normal size beside it; or remembering from his school days, that the volumes of two spheres are to each other as the cubes of their diameters (assuming eggs to be spheres), he will see that the normal egg contains about two and a half times the contents of the "runt."

The article on the albino eggs of the Florida Towhee, also reminds me that I have a beautiful set of four albino eggs of the Bobolink (*Dolichonyx oryzivorus*), collected near Utica, N. Y., in June, 1872. They are a pale bluish-gray, with a few blackish marks and scratches about the larger end, and look about as little like a normal set of Bobolinks, as one can possibly imagine.

O.&O. XIII. Apr. 1888 p: 69.

Destruction of Bird Life by the Cold Wave of
May 21-22, 1882.

X,

Dendroica pensylvanica: See under
Helminthophila peregrina.

Bull. N.O.C., 7, July, 1882, p. 185.

1065. Der Hechensänger, *Dendroica pensylvanica* Baird, Chestnut-sided Warbler. By H. Nehrling. *Ibid.*, No. 6, pp. 185, 186.

Zoologische Garten, XXVI

Dendroica castanea.

Breezy Point, Warren, N.H.

1894. In the afternoon I spent an hour or more sitting on the
June 25. rocks at the water's edge (by the river) writing. Presently
I heard a Bay-breasted Warbler, new to our list. He sang at
first like a Golden-crested Kinglet (the tzee-te-tzee), afterwards exactly like a Redstart. I followed him about through the spruces for nearly an hour getting repeatedly within fifteen or twenty feet of him for he showed no fear of me whatever. He was very deliberate in his movements but kept hopping and flitting from branch to branch and from tree to tree keeping always in spruces and usually near the ends of their lower branches searching busily for food but singing steadily the while at short intervals.

June 28. I spent the forenoon alone in the beautiful woods between the Moosilauke House and the river. It is a great haunt of the smaller birds, among them two male Bay-breasts. They were close together - at times in the same cluster of spruces. One sang exactly like a Redstart, the other the typical song. I am not sure that there was not a third male at a little distance but one of the two just mentioned may have moved his position and misled me.

Dendroica castanea.

Nantucket, Mass.

1878. Shot one on Smith's Point, flushing it from the beach

Sept. 28. grass.

Birds of Southern New Brunswick.
E. C. Campbell.

3. *Dendroica castanea*. BAY-BREASTED WARBLER.

Bull. N. O. C., 7, April, 1882, p. 104

Fourth Addendum to List of Birds Ascertained to Occur within ten miles from Point de Monts, Province of Quebec, Canada; based chiefly upon the notes of Napoleon A. Comeau.—(For original List and previous Addenda see Bull. Nutt. Ornith. Club, Vol. VII, No. 4, Oct. 1882, pp. 233-242; Vol. VIII, No. 4, Oct. 1883, p. 244; and The Auk, Vol. I, No. 3, July 1884, p. 295; Vol. II, No. 1, Jan. 1885, p. 113.)

Mr. Comeau has recently sent me skins of the five following species:

174. *Dendroica castanea*.—♂ shot at Godbout the last week in May, 1885.

C. Hart Merriam, Locust Grove, N. Y.

Auk, 2, July, 1885, p. 315.

Allen's Summer Birds from d'Ar Region

Dendroica castanea.—One seen June 4.

Auk, 8, April, 1891, p. 165

Notes from Dartmouth, N.S.

— *H. Austin*

080.
Vol. XVII
no 10
Oct. 1892
p. 146

The last time I had this pleasure was on June 19, and now I beg to submit notes for balance of the season, and trust they may prove of interest to your readers.

June 21. To-day being a holiday, I started for the woods about 9 A.M. It was raining pretty hard, but I kept on and borrowing a long ladder carried it out to the Bay-breasted Warbler's nest that I had found building on the 12th. This was up about twenty-five feet and placed way out on the end of a very long branch of a very big black spruce, and was impossible to secure without the ladder. The ♀ was scared off the nest on my going up, and I was delighted to see that it held six eggs; so the bird has completed the nest and laid the six eggs since the 12th, which left nine days for her to do it in. The eggs were fresh.

I then went and took the Bay-breasted Warbler's nest that I found built on the 16th and looked at on evening of the 17th, when it held one egg, and also looked at on evening of the 19th, when it held three eggs, and to-day it held five eggs. This nest was out on end of a black spruce limb, about fifteen feet up from the ground. I shot the ♀; eggs fresh. ~~It still raining~~

Birds of Toronto, Canada,
by James H. Fleming,
Part II, Land Birds,

Auk, XXIV, Jan., 1907, p. 24.

252. *Dendroica castanea*. BAY-BREASTED WARBLER.—Regular spring migrant, not very common, May 10 to 24; latest spring record May 30, 1906; one fall record, a young female, August 24, 1906.

Birds of Dead River Region, Me. F. H. C.

25. *Dendroica castanea*, (Bay-breasted Warbler). This species was observed commonly about Flagstaff Lake, but I failed to observe it in any other section of the counties. It was one of the species whose nidification was observed to an advantage, two nests being found near the shores of the lake and not far from our camp at the inlet. One nest was placed on the branch of a hemlock about ten feet from the ground and was composed outwardly of the fine twigs of the larch, a few lichens and grass stalks, compactly lined entirely with fine hair and a few feathers, which I find to be the usual lining of the nests of the Warblers of this region. It contained four eggs, bluish green in color, two of them profusely spotted with brown, while in the others the spots tended to form a wreath about the larger end. Dimensions as follows: .68x.52, .68x.52, .66x.50, .66x.51.

O. & O. XI. Sep. 1886. p. 130

Snellbourn, N. H.

Dendroica castanea

1884.

- July 9 An adult pair shot by Chadbourne in white pine woods bordering the valley road. They were in very good plumage.
- " 17 Three adult males, an adult ♀, and two young in first plumage shot in a small grove of white pines on Rogers Brook. One of the males had moulted all the feathers of the throat; the other with the ♀ was in good plumage.
- " 19 Two adult males & a female seen in a mixed flock in some large white pines (Rogers' woods). One of the males was singing steadily. I noted his

Mt. Washington, N. H.

Dendroica castanea

1884

- July 11. Shot an adult male and three young near the carriage road about midway between the second and third mile posts (approx. 2600 ft.) The adult ♂ was silent and was feeding one of the young. Two others of the same brood were ~~found~~ not far off sitting in low spruces, motionless, but keeping up an incessant chirping. A fourth, considerably older, was following, and being fed by, an adult ♀ in the tops of the higher trees.
- July 26. Chadbourne thought he saw an adult ♂ a little below

New Hampshire (Lamworth)

Dendroica castanea

Nest & 2 eggs taken

Mr. Frank Bolles has a nest with two eggs which he took at Lamworth. It was built on the horizontal branch of a hemlock at a height of about 20 ft. The locality was a dark, retired swampy glen down which ran a small brook.

Summer Birds of Presidential Range,
White Mts. A.P. Chadbourne

32. *Dendroica castanea*. BAY-BREASTED WARBLER.—One was killed at our camp in the Great Gulf early in July, 1886, and two broods of young just out of the nest were found about two miles by carriage road from the base.

Auk, 4, April 1887, p. 106

Bds. Obs. in Franconia, N.H. June 11-21
'86, and June 4-Aug. 1, '87. W. Faxon

64. *Dendroica castanea*. BAY-BREASTED WARBLER.—Common in deep, primitive woods, especially at high levels.

Auk, V. April, 1888, p. 153

Presidential Range, White Mts.

1886

July 11 & 12, 1886. White Mts. N.H.

Dendroica castanea

Cambridge, Mass.
May 21, 22, 1882.

For two or three days, on and after May 21st Bay-breasted Warblers were fairly numerous in Cambridge and surrounding towns. Spelman took several in Fresh Pond grove, Maynard had one or two from Belmont, and Phummer got no less than four in Brookline.

Dendroica castanea:

See note by Purdie, "Rare Warblers in Mass.," under Geothlypis philadelphicus.

Bull. N.O.C. 7, Oct, 1882, p. 252.

Mass. (near Concord). 1887

Dendroica castanea

1887

May 21st - 22nd

Mass (Winchendon)

1887

One or two seen in a spruce swamp by Bailey as late as the middle of June.

Dendroica castanea

Birds of Bristol County, Mass.
F. W. Andros.

Dendroica castanea (Wils.), Bay-breasted Warbler. Migrant, rare. Two occurrences noted.

O. & O. XII, Sept. 1887 p. 141

Middlesex Co., Mass.

Dendroica castanea

1884

East Chestington, Mass.

May 24. Shot a fine ♂ near Wellington
Carr. It was with a company
of D. striata in low bushes &
was singing loudly and
incessantly. The song is very close
to that of the short one of the
Redstart. Like the D. striata shot
with it it was very fat.

Middlesex Co., Mass.

Dendroica castanea

1884

- Aug. 23 Shot a young ♀ in a plumage about half way
between the first & full stages. It was in
a mixed flock among red cedars (Coolidge
farm, Watertown). It was rather fat.
- " 25 Shot two in the tops of tall white oaks on French's
hill (Watertown). Both were young, moulted still,
but in nearly perfected fall dress. Neither was at
all fat. They were with other Warblers & even Redstarts.
Motions slow and heavy almost as much as
a Vireo's. They look large in the trees. D. striata
has not appeared yet.

General Notes.

Notes from Connecticut.
May 1890. E. H. Loomis, Bridgeport, Conn.
At the same time in the spring there was also an unusual number
of Bay-breasted Warblers!

Auk X, Jan., 1893. p. 90.

Birds of the Adirondack Region.
C. H. Merriam.

29. *Dendroica castanea* (Wilson) Baird. BAY-BREASTED WARBLER.
— Rather rare. Occurs during the spring migration. Not known to breed.

Bull. N. O. C. 8, Oct. 1881, p. 227

Long Island Bird Notes N. T. Lawrence

2. *Dendroica castanea*. BAY-BREASTED WARBLER.—Secured an adult male in a small grove of oaks at Far Rockaway, June 23, 1870. Mr. Eugene P. Bicknell has a record from Riverdale, N. Y., dating July 26, 1875. He also informs me that, from records kept of this bird for a number of years at Riverdale, N. Y., in its regular migration, the latest spring record is the end of May, and the earliest fall record the middle of August.

Auk, 2, July, 1886, p. 272

Bird Notes from Long Island, N. Y.
William Dutcher.

15. *Dendroica castanea*. BAY-BREASTED WARBLER.—Mr. Giraud said of it: "The Bay-breasted Warbler is among the last of the Genus that arrives among us in spring. During some seasons it occurs in considerable numbers, but in general it is by no means plentiful."† The Lawrence collection contains two examples, a male and a female, from Long Island. Mr. A. H. Helme, who is an indefatigable and very careful collector, kindly permits me to record the specimens of this species that he has taken at Miller's Place, Suffolk Co., since he has been collecting. May 29, 1882, a male; May 16, 1884, a male; September 12, 1888, one, sex not given. September 14, 1888, he was sure he saw another, but it was not secured, and on the 29th of the same month he secured one making his second specimen for this fall. I have never met with it in any of my collecting trips, nor has my son, nor have I ever found a light house specimen, although I have received and examined carefully hundreds of Warblers from the lights during the past few years.

Auk, VI. April, 1889, p. 138-139.

†Birds of Long Island, p. 62.

Original Notes from Long Island.

Other notable captures are the Bay-breasted Warbler, of which I have secured one and Mr. Helme four. Arthur H. Horrell, Brooklyndale.

Auk 9, July, 1892, p. 307.

Arrivals of Mig'y Birds, Spring-1886,
Central Park, N. Y. City. A. G. Paine, Jr.

May 7, *Dendroica castanea*, (600). Bay-breasted Warbler.

O. & O. XI, July, 1886, p. 109

Notes on Long Island Birds.

Dendroica castanea.—In the outskirts of the village of Flatbush, now a part of Brooklyn, on the morning of Sept. 24, 1895, a number of Warblers, chiefly Black-polls, was seen in a row of shade trees, not far from the Boulevard. Among them was a Bay-breasted Warbler, which was secured. It is an immature male with the buffy markings on the sides well developed.—WILLIAM C. BRAISLIN, *Brooklyn, N. Y.*

Albinism and Melanism in North
American Birds. Ruthven Deane.

D. castanea, a small portion of the
forehead ~~being~~ white, and extending over half of the upper man-
dible.

Bull. N. O. C. 1, April, 1876, p. 21

Nesting of the Bay-breasted Warbler.

BY WILLIAM L. KELLS, ONTARIO, CANADA.

Some nine years ago I determined to put into execution a design that I had long conceived—that of making a collection of the eggs of all the birds found to nest in this vicinity, for with other collectors I had then no acquaintance, and but an imperfect knowledge of how to prepare my specimens. So after making a collection of all the specimens found nesting around home, and prepared them as best I could—some by a hole in each end, and some by a hole in the small end—I set off one day in the early part of June for the wild, swampy woods to the northwest of the town. After penetrating some distance into the first piece of wood that I entered, the first nest that I discovered was placed about eight feet from the ground, between some leafy twigs and the trunk of a small birch tree. This was composed outwardly of fibrous bark, especially birch rootlets, and was neatly lined with pine hair, and the interior was a little over two inches in diameter by one in depth. It contained three fresh eggs, of a clear white, with a bluish tinge, thickly spotted with brownish spots, especially towards the large end. These, in size, were a little larger than are those of the more common Chestnut-sided Warbler (*Dendroica Pennsylvanica*). I did not see the bird to which this nest belonged, nor would I then have been able to identify it if I had. The next season, however, I saw a little bird forming its nest on the horizontal branch of a small water elm that stood on the edge of a drain, in a piece of low woods south of the town. Of the size and markings of this species I took particular notice, for she exhibited little fear, and the nest site was only about twelve feet from the ground, and the nest when finished, and the eggs therein deposited, were exactly like those above described. This bird I afterwards identified as the Bay-breasted Warbler (*Dendroica castanea*). Some days after I first discovered this nest I visited it and found that it contained one egg, and in three days more I plucked the bird off and found that the nest contained but three eggs, which I concluded was the full set, and so took them. Later on in the season, in another swampy wood, I found (in the top of a small hemlock, about fourteen feet off the ground), another nest of the same species, containing four fresh eggs. Since then I have seen no nests of this bird, save one, which, however, contained no eggs. This, like the others, was formed on the outside with fine pieces of birch bark, but was placed between a small limb and the trunk

of a small cedar, about five feet from the ground. The general habitat of this species, according to my observations, is low, swampy woods, where there is an intermingling of evergreens with black ash, birch, water-elm, and other soft woods, and as it does not appear to make its advent here until the season is pretty well advanced, and the trees are putting on their summer garb, and as their food-seeking avocations are usually pursued high among the tops of the underwood, where they are well concealed from observation among the green foliage, so that even should man enter such places in the spring or early summer days, their existence would scarcely be known were it not for their pleasing song notes, which are warbled at this period with considerable clearness and animation. The majority of this species, however, appear to move on further north, where in deep, wild woods, little haunted by the human race, they find more secure and favorable breeding places, though from the causes above mentioned, more of them may nest in this province than is now supposed to be the case, and, from their haunts and habits, it may be also inferred that the smaller species of insects constitutes their chief food.

O. & O. XI, Aug. 1886, p. 123

striata

Dendroica striata.

1889

A. W. 1888

May

11 (May) 13 (June) 14 (July) 16 28 17 28 24 12 25 38 26 28 27 12 28 18 18 29 28 30 28 1889
 13 12 17 12 19 22 23 22 24 22 26 12 29 22 30 22 1890
 16 22 23 22 24 12 25 28 31 28 1891

17 18 22 23 24 28 25 30 28 26 12 29 28 30 28 29 28 31 28 Concord 1892

16 12 18 12 19 22 23 22 24 22 26 12 29 22 30 22 Concord 1893

8 12 9 12 10 12 13 12 16 12 17 12 26 12 27 12 28 12 29 12 30 12 31 12 Concord 1894
 14 12 19 12 20 12 21 12 22 12 23 12 24 12 25 12 26 12 27 12 28 12 29 12 30 12 31 12 Concord 1895

June

3 12 7 12 18 12 31 12 1891 1891 1891 1891

Sept.

7 12 20 12 22 12 23 12 24 12 25 12 26 12 27 12 28 12 30 12 Concord 1892
 6 12 8 12 9 12 12 12 13 12 16 12 Concord 1893

Oct.

4 12 21 12 1891 1891 1891 1891
 1 12 2 12 4 12 10 12 14 12 18 12 19 12 Concord 1892 1892 1892 1892
 12 12 13 12 14 12 15 12 16 12 17 12 18 12 19 12 20 12 21 12 22 12 23 12 24 12 25 12 26 12 27 12 28 12 29 12 30 12 31 12 Concord 1893 1893 1893 1893
 7 12 21 12 Concord 1894 1894 1894 1894

Nov.

3 12 1893 1893 1893 1893

Dendroica striata

1889 Mass.

May 10 Cambridge. - Shot an adult ♂ in the Meph Swamp. It was in early arrival, a hedge of white willows in company with four *D. coronata* associating and a *Vireo gilvus*. The date is, I think, the earliest furnished with *D. coronata* by my experience and the birds association with *D. coronata* is also perhaps unusual for this locality. It sang once.

" 11 Melrose Highlands. - "I found Black polls in several places on the 11th. My last year's date was the same." (Torry, letter May 17/89)

" 29 Watertown. - Heard five ♂♂ singing in oak & pitch pine woods.

They have been singing daily in or near my garden for the past ten days but I have not heard more than one or two each day. I was reminded this morning of a fact that I have long known viz. that this Warbler, like so many other birds, has two distinct but regular songs. The first is the "dotted line" song, a trill ti, ti, ti, ti, ti, suble, all on the same key, and as monotonous and insignificant as any bird song I know. The second differs in having the notes divided into two sets & blurred as: ti-ti-ti, ti-ti-ti or skitter-itter-itter. The first variation is the common but the blurred song is by no means rare.

Song variations

The trees are now in full summer leaf and the Blackpolls, keeping always in the densest foliage that offers, are much oftener heard than seen.

1890

May 23 Cambridge. Two ♂♂ in the Meph Swamp, one singing. They have been scarce very scarce this year and I have not as yet seen or heard one in the cultivated parts of Cambridge. The song is peculiar as to movement, accelerated towards the middle, retarded at the end.

Peculiar movement of song

" 29 Belmont. Two ♂♂ singing in birches. None in Cambridge thus far.

Massachusetts,

Dendroica striata

1892.

May. 25 Concord. This was a Black-poll Warbler day. When I rose at 6 A.M. and looked out the door of my little cabin the trees and bushes along the river front were simply swarming with them. I counted 20 at one time in this area of a few square yards. The majority were males.

May. 25 The top and sides of Ball's Hill were literally swarming today with Black-poll Warblers, more than half of which were females. The flight must have reached its height last night.

Dendroica striata.

Breezy Point, Warren, N.H.

Mt. Moosilauke.

Nest.

1894. While searching for Thrushes' nests among the young balsams at an elevation of about 3500 feet I stumbled on a nest of the Black-poll Warbler. It was built just 37 inches above the ground on a stout branch of a fallen and dying black spruce. The foliage of the spruce branch although still green afforded the nest little shelter but it was beautifully concealed by the spreading, luxuriant shoots of a little balsam which extended out close above it. A score or more of these young balsams, four or five feet tall, had shot up around and through the spruce forming a dense thicket. Happening to step on the trunk of the spruce I saw some bird flit off among the balsams. Following I came upon a female Black-poll, a remarkably fine old bird so heavily and conspicuously streaked on the throat and sides that I took her at first for a male. She was absurdly tame allowing me to get within three or four feet of her and flitting about close to the ground pretending to feed just as does the female Swamp Sparrow when started from her nest. The pretence was so obvious that I felt sure at once that this Warbler had just left her nest but I had to look for it very carefully before I found it. I afterwards returned to it with Faxon and found the bird sitting. Unlike most sitting birds she kept moving her head about uneasily as we stood within a yard or so of the nest looking at her. I

Dendroica striata.

Breezy Point, Warren, N.H.

Nest.

1894 nearly touched her before she would leave her eggs. She then
June 22. began acting precisely as she had acted during her my first
(No.2). visit, flitting about among the balsams pretending to catch
insects. She did not once chirp nor show in any way that she
noticed our presence. I finally, with great reluctance, de-
cided to shoot her but my cartridges were bad and the two
shots that I fired only wounded her slightly.

Birds within Ten Miles of Point
de Monts, Can. Comeau & Merriam

16. *Dendroica striata*. BLACK-POLL WARBLER. Rare. Mr. Comeau shot a male, June 7, 1882.

Bull. N. O. C., 7, Oct., 1882, p. 25

Newfoundland Notes. A Trip up the
Humber River, Aug. 10-Sept. 24, 1880.

42. *Dendroica striata*. BLACK-POLL WARBLER.—Seen in large numbers on August 27.

Louis H. Porter, New York City.

Auk, XVII, Jan., 1900, p. 72

Birds of N.E. coast of Labrador
by Henry B. Bigelow.

75. *Dendroica striata*. BLACK-POLL WARBLER.—A very abundant and characteristic bird, as far north as the limit of timber near Cape Aillik.

Auk, XIX, Jan., 1902, p. 30.

Birds of Toronto, Canada,
by James H. Fleming,
Part II, Land Birds.

Auk, XXIV, Jan., 1907., p. 84

253. *Dendroica striata*. BLACK-POLL WARBLER.—Regular migrant, not very common, May 17 to June 3, and August 27 to September 28.

Canada

Breeding of *Dendroica striata* at Great Slave Lake.—June 24, 1908, while crossing the burned over area on the high rocky center of Moose Island, near Fort Resolution, I stepped across a small dead spruce lying on the ground, and a small plainly colored bird darted from the mass of tall dead grass which surrounded the trunk of the fallen tree. The bird disappeared in the underbrush at once without uttering a sound. Concealing myself, I waited about twenty minutes and the bird stealthily approached the nest hopping from bush to bush, occasionally uttering a sharp, nervous *tsip* like the alarm note of the Junco. The bird proved to be a female Black-poll Warbler. The nest was placed directly on the ground in the middle of a clump of tall grasses, immediately underneath a small, fallen spruce, the trunk of which was lying about ten inches above the ground. The nest was composed of dead grasses, mixed with cottony substances and a little moss, lined with finer grasses, and a few feathers including one tail feather of a Fox Sparrow. The four eggs were advanced in incubation; whitish colored, spotted with light brown tending to form a wreath around the larger end, the wreath more distinct in some specimens than others.—R. M. ANDERSON, *Amer. Mus. Nat. Hist., New York City.*

Auk 26, Jan-1909, p. 80.

Birds of Dead River Region, Me. F. H. C.

26. *Dendroica striata*, (Black-poll Warbler).
Observed commonly during the migration the
second week in June.

O. & O. XI. Sep. 1886. p. 130

1884

July 11-12 Observed from about midway the 3rd mile post (approximately 3200 ft.) to the 4th to the beginning of the 6th mile (approximately 5200 ft.). It was most numerous in a large tract of fir & spruce, none of which were higher than my head, covering the black mountain side a mile above the Half-way house by the carriage road. Here five or six might be heard singing at once. Both sexes were carrying food to their young which, apparently, were still in the nest. One that I shot had a small.

Bds. Obs. in Franconia, N. H. June 11-21
'86, and June 4-Aug. 1, '87. W. Faxon

65. *Dendroica striata*. BLACK-POLL WARBLER.—Common in Franconia Notch up to tree limit on Mt. Lafayette. Rare in the lower part of the town.

Auk, V. April, 1888. p.163

**Summer Birds of Presidential Range,
White Mts. A.P. Chadbourne**

33. *Dendroica striata*. BLACK-POLL WARBLER.—Common about our camp in the Great Gulf (altitude, 3140 feet), but did not occur far below it. From the altitude of our camp as far as the shrubs extended it outnumbered the common Junco. It was very abundant through the shrubs and low matted spruces above the timber limit, but owing to lack of proper shelter did not extend higher. I saw a single specimen, at an altitude of 4800 feet, in some stunted birches (*Betula papyracea minor*) and dwarf willows (*Salix cutleri*).

Young birds were heard on July 10 apparently just out of the nest, but some young killed on July 26 had already begun to change into fall plumage. The males were in full song on July 26, but on August 11 both old and young birds had disappeared.

Auk, 4, April 1887. p.106

**Birds of Hillsboro Co. N. H. June 27, '92
Arthur M. Farmer, Amoskeag, N. H.**

[Black-poll Warbler, I thought I caught a glimpse of a male through the brush but could not get a shot.

O. & O Vol. 17, Sept. 1892 p.136

smaller birds, killed by the boy in
 its cell. After which I have
 learned to be carrying smaller
 birds, the boys are going on
 every and could find no more.
 The weeks they find through
 the entire season. Now that
 I have seen all entirely free
 from fat.
 This Warbler used numerous
 in the Glen House clearing in
 1869. I believed them to-day
 but could be none.
 I have seen heard to-day near
 the beginning of the night and
 in places more or less were
 over the just high.
 July 26. About the adult ♂, heard
 singing and then heard of young
 been near the high way. When
 young that are all changing from
 first to full plumage. The adult ♂,
 was singing from 1. Heady. The
 that had reached the third plumage
 were silent. yellow feathers
 were appearing.

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 '86, and June 4-Aug. 1, '87. W. Faxon

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Auk, 4, April 1887, p.106

Birds of Hillsboro Co. N.H. June 27, '92
 Arthur M. Farmer, Amoskeag, N.H.

Black-poll Warbler, I thought I caught a
 glimpse of a male through the brush but
 could not get a shot.

O. & O Vol. 17, Sept. 1892 p. 136

64. *Dendroica striata*. BLACK-POLL WARBLER.—Numerous in the region of stunted trees on the upper slopes, though none were seen on the extreme summit. They sang usually on the tops of the spruces, and from these breezy heights, the song sounded even weaker than when we hear it from passing migrants in the low country.

Arthur H. Brown.

188. I. P. III, Oct. 20, 1894

1884.

May 18. One seen in Cambridge.

" 19. Heard vocal.

" 24. A heavy flight of males with a few females. Shot ten. They were nearly all excessively fat. They are more scattered than in fall, not being forced strictly in flocks, although many occurred to-day in the same thickets.

May 30. Batchelder observed large numbers in Mattituck
 Sept. 1. Shot a ♀ in full fall plumage. It was among red cedars (Watertown) & is the first I have seen after I have been out frequently since Aug. 15th.

86. *Dendroica striata*. - E. Mass., 1885. Sept. 28^o, 30^o. Oct. 2^o, 5^o.

Mass. (near Concord).

Habit in Spring.

MAY 25 1887

Very abundant for past week. Not as generally distributed as in autumn and chirps much less. ♂ singing freely at all hours. Found most numerous in white pines and in maples along the river. Saw the first ♀ to-day.

Dendroica striata.

1887

Oct. 2² 4¹⁰ 5¹⁰ 7¹

1888

Oct. 23 4 27³

Dend. striata

Mass. (near Concord) 1887

1887

May 13¹³ 16²² 17⁴⁵ 21⁶⁵ 22¹⁰² 23²⁰² 25⁴⁸ 26²²⁸ 28⁴⁶² 30¹⁸
June 2¹⁸

Dendroica striata

* singing

Birds of Bristol County, Mass.
F. W. Andros.

Dendroica striata (Forst.), Black-poll Warbler. Migrant, tolerably common.

O. & O. XII, Sept. 1887 p. 141

Dendroica striata

Cambridge Mass.

(one)

Nov. 7, 1904.

A. C. Comey.

420.

Blackpoll Warbler Lingering in Mass.—I had thought that the climax of the most backward spring migration I have ever known had come when I heard singing, and subsequently saw at close range, a Blackpoll Warbler in Cambridge Common on June 25 of this year, eighteen days later than any record in Brewster's 'Birds of the Cambridge Region.' However, on July 7 I observed one singing on Quarry Point, Cohasset, Mass., and subsequently recorded him regularly, though with decreasing frequency during August, as he sang less and less, and was practically undiscoverable when not singing, in spite of the fact that he appeared to keep to an area of not over twenty acres in the center of the point. Though I watched his movements closely for considerable periods I could never discover that he approached any nest, had a mate or young, nor did a search of the small cedars, pitch pines, and bushes of the area reveal them. I must conclude therefore that he was a stray, probably straggling north very late indeed and possibly stopped by the ocean lying immediately north for some twenty miles. I heard and saw him for the last time on August 27, though he may well have remained there until the fall migration.—ARTHUR C. COMEY, Cambridge, Mass.

Arch. XXX V. Jan. 1918, 70, 82-83.

Connecticut, June. 1893.

Dendroica striata

June 4th - Fairfield

Migrants singing in the
elms over the village. Quite
near the hotel.

Bird Notes from Long Island, N. Y.
William Dutcher.

23. *Dendroica striata*. BLACK-POLL WARBLER.—Of the five hundred and ninety-five birds which were killed by striking Fire Island Light, September 23, 1887, no less than three hundred and fifty-six of them were of this species. Among them I found a very beautiful partial albino.

Auk, V, April, 1888, p.182

Birds from Fort Carroll, Hudson Bay, W. Eagle Clark.

AUK, VII, Oct.
1890, p. 322

Dendroica striata. — a, an adult male; b, a young bird in first plumage.

Bird Notes from Long Island.

The season has been very late, the majority of the May migrants not appearing until the 16th, when there was a large flight. They continued to come to the very last of the month; a large flight occurred on the 26th, a smaller one on the 27th, and a considerable number of migrants, mostly Blackpoll Warblers, were observed on the 30th.—ARTHUR H. HOWELL, Brooklyn, N. Y.

Auk 9, July, 1892. p.307.

Birds of the Adirondack Region.
C. H. Merriam

178. *Dendroica striata* (Forst.) Baird. BLACK-POLL WARBLER.—In the collection of the late A. Jennings Dayan (of Lyons Falls, N. Y.) is a female of this species that he killed in the town of Lyonsdale in Lewis Co., May 23, 1877.

Bull. N. O. C. 7, April, 1882, p. 128.

Arrivals of Mig'y Birds, Spring-1886,
Central Park, N. Y. City. A. G. Paine, Jr.

May 16, *Dendroica striata*, (661). Black-poll Warbler.

O. & O. XI, Aug. 1886, p. 125

Notes on the Spring Migration of Birds in the Northern Adirondacks [Alton], New York [1901].

May 25 to 30.

Black-poll Warbler. Not common.

E. A. Sterling, Brooklyn, N. Y.

Auk, XII, July, 1902, p. 22

*Albino Specimens in the Museum
of the Philadelphia Academy.*

a Black-poll Warbler (*Dendroica striata*) in which the entire plumage is suffused with white.

C. H. Townsend.

Bull. N. O. C. 3, April, 1883, p. 126.

An Albino Blackpoll Warbler.—A male specimen of *Dendroica striata* taken by the writer at Upper Chichester, Delaware Co., Penn., May 12, 1888, during migration, displays such a remarkable variation of plumage as to merit special mention.

The entire crown, with the exception of three or four small black feathers over the eyes, is pure white, the edges of the feathers tipped with cream color which is more decided fringing the neck. The upper tail-coverts and rump are pure white, extending high up on the back and passing irregularly through the interscapulars and joining the white on back of neck and crown; rather silky across the rump. The interscapulars form an irregular bar across the shoulders. The scapulars and tertiaries are sparsely spotted with white, most prominent on the right side. The sides of breast are streaked as usual, although of a rusty color, rather obsolete as they approach the chin which is pure white. The throat and breast are ochroleucous. Otherwise the plumage is natural. The upper and lower mandibles, legs and feet, are deep yellow. The white feathers are immaculate from the quills out, none being edged or spotted with the natural colors.—J. HARRIS REED, *Ridley Park, Penn.*

Auk, V, Oct., 1888, p. 432.

Dendroica striata. BLACK-POLL WARBLER. — A common migrant in both spring and fall on the Gulf coast in the vicinity of Tarpon Springs and at other points where investigations have been carried on. At Tarpon Springs they arrive in spring about the last week in April and remain till about May 12-15.

Gulf Coast
of Florida,

In this connection it is of interest to record a great mortality among the representatives of this species, during the spring migration of 1888. It is so rare that one finds any birds dying or dead from other than accidental causes, generally connected in some way with innovations caused by the settlement of a country, as telegraph wires, light-houses, and the like, that it seems worth while to give the following details of the epidemic. It was apparently confined, so far as I am aware, to representatives of this species alone, and only to those individuals which visited the Anclote Keys and Hog Island. These Keys are four in number, and are four miles from the main land, in the Gulf, and extend in a north and south line for about twenty-five miles. I found in late April and early May many *D. striata* dead, and others apparently ill unto death on these islands, and though there was an infinite variety of other bird-life represented at the same points, yet no other species seemed to be suffering or was found dead. Of *Dendroica striata* I picked up dead on April 29, 1888, in a short walk on South Anclote Key, upwards of twenty-five.

In the fall the birds pass late in September and during October in numbers.

Mr. Atkins considers the birds as rare spring migrants at Punta Rassa,

but common in the fall, and at Key West they are very common on both migrations. Florida. Scott. Ank, VII, Jan. 1890. p. 19-20

* 9. *Dendroica striata* (Forst.).

* Newly collected.

Bull. N. O. C. 5, July, 1880, p. 166

X.

NOTES ON SOME BIRDS AND EGGS FROM THE MAGDALEN ISLANDS, GULF OF ST. LAWRENCE. — The following notes, made by Mr. M. A. Frazar during a collecting trip to the Magdalén Islands in June and July, 1882, seem of sufficient importance to merit publication, although many of them are not absolutely new. Some of the points which they cover, however, have been previously involved in more or less obscurity, while the others will be none the worse for fresh data. The specimens described, and most of those mentioned, are now in the writer's collection, and the descriptions are on his authority.

1. *Dendroica striata*. BLACK-POLL WARBLER. — A set of three fresh eggs, identified by the capture of the female parent, was taken June 23. The nest was built in a low, thick spruce which stood on the edge of a swamp, near a brook. It was placed on a horizontal branch at a height of about three feet, and was well concealed by the clusters of densely-imbricated needles above. Externally it measures 5 inches wide by 2.50 inches deep; internally 1.80 by 1.50 inches. The walls in places are 1.50 inches in thickness. The main body of the structure is composed of *Usnea* moss, weed-stalks, and dry grasses, closely matted and protected outwardly by coarser stalks and a few dead spruce twigs. The lining is of slender, black moss-stems (which curiously resemble horse-hair), cows'-hair, and a few feathers. The whole affair is remarkably solid and bulky for a Warbler's nest.

The eggs are white, with brown specks scattered over the general surface of the shell and numerous spots and blotches of reddish-brown and lavender about the larger end. They measure respectively .75 X .56, .76 X .56, and .75 X .57.

Wm Brewster.

Bull, N. O. O., 7, Oct, 1882, p. 253 - 254.

Birds of Magdalen Islands, Dr. L. B. Bishop.

52. *Dendroica striata*. — BLACKPOLL WARBLER. — One of the most abundant birds, breeding everywhere. This bird and *D. coronata* choose the same localities for their nests—dense spruce thickets, but while *D. striata* generally nests close to the trunk, *D. coronata* places its more spacious home out on a horizontal branch. Fresh eggs were taken as late as July 12.

Auk, VI. April, 1889, p. 149

Notes on Some Birds of Grand Manan.

—BY C. H. ANDROS.

Black Poll Warbler (*Dendroica striata*). Both Hay and Sheep islands seem to be favored breeding grounds of this species; no less than five nests being brought to light in an hour's search over the former. We did not confine our attention exclusively to the smaller breeders or undoubtedly many more sets would have rewarded a more thorough investigation. Several cats that had an apparently unrestrained life during the warm season have diminished the bird life to no little extent. On Nantucket, Long, and the Duck islands, these felines are no longer tolerated, having been expelled a few years ago, at the suggestion of Mr. Cheney who could not fail to see that their depredations, especially among the Warblers, would if allowed, impair the increase of their numbers in a few seasons. Those species whose home most frequently comes in "Tabby's" path are the Yellow-rump, Black-poll, Black and Yellow Warblers and Swainson's Thrush.

The nidification of *D. striata* differs from that of *D. maculosa*, the nest being more bulky and the greater variety of material entering into its composition makes it easily distinguishable from the simple mould of hair and grass fibre of the Black and Yellow. The eggs too are a trifle larger, resembling those of the Black and White Warbler, to my mind. The song is "weak and unmusical," in addition to which is frequently heard the squeaky note more often noticed, perhaps, during migration, which a particular friend of mine likens to a mouse in a trap in distress.

The typical nests are generally built in the intersection of limb and trunk of a low hemlock, and we found the complement to be five eggs. The Gulls nest very abundantly in the neighborhood of their haunts often encroaching on them, and one nest was placed but a few yards from where an Olive-back Thrush was seated upon her full set.

O. & O. XII, Nov. 1887 p. 172

A Series of Eggs of the Black-poll Warbler.

The eggs of the Black-poll Warbler (*Dendroica striata*) present as much variation in size, shape and coloration as those of any of the Warblers. They vary in shape from ovate to elongate ovate, while the ground color runs from white to creamy and pinkish-white, with a rare phase which shows a light greenish-white. The series now before me, consisting of seventeen sets, and described below, shows in detail the curious types of their markings and coloration.

The nest is a beautiful structure. Those that I have (over fifteen in number) show but little variation in their construction, except that some are much more copiously lined with feathers than others. Perhaps the similarity of these nests is due to the fact that they all came from one locality, and that the birds naturally used the same materials.

A typical nest (so far as can be selected from those before me) may be described as follows: Outside depth, 1.75; inside depth, 1.10; outside diameter, 3.75; inside diameter, 2.00. Composed of grasses, roots, a little lichen, and a few small twigs of spruce fir.

Lined with fine grass, and over this is placed a thick lining of soft white feathers, apparently belonging to the domestic goose. The roots and grasses are mostly dark, and the contrast of the pure white feathers with the remainder of the nest presents a beautiful effect. When seen with the eggs in the nests nothing prettier can be imagined.

They were all found in spruce trees. One of them was only a foot from the ground; another was eighteen inches; a third was two feet up; a fourth three and a half feet; two more were each four feet high; five were five feet up; two others were seven feet from the ground; another was eight feet; and still another was ten feet high.

Set I. June 12, 1877. Grand Manan, N.B. Five eggs. Grayish-white, speckled and spotted, almost exclusively at the larger ends, with olive-gray and bistre. The markings form indistinct wreaths: .73 x .55; .70 x .55; .73 x .55; .71 x .55; .68 x .54.

Set II. June 12, 1885. Grand Manan, N.B. Five eggs, fresh. White, speckled and spotted with burnt umber and olive-gray. The markings are much heavier near the larger ends: .68 x .50; .69 x .52; .69 x .51; .68 x .51; .68 x .49.

Set III. June 19, 1888. Grand Manan, N.B. Five eggs, incubation commenced. Bluish-white, heavily spotted, almost entirely at the larger ends, with olive-gray and burnt umber: .74 x .53; .74 x .53; .72 x .53; .73 x .52; .74 x .54.

Set IV. June 19, 1888. Grand Manan, N.B. Three eggs, incubation commenced. Bluish-white, spotted and speckled, chiefly at the larger ends, in the form of indistinct wreaths, with olive-gray, bistre and burnt umber: .73 x .54; .74 x .54; .73 x .53.

Set V. June 13, 1885. Grand Manan, N.B. Five eggs, fresh. Light creamy white, heavily speckled and spotted with russet, burnt umber, and olive-gray. The markings are over all the surface, but are heavier at the larger ends: .71 x .53; .70 x .53; .71 x .54; .69 x .52; .68 x .52.

Set VI. June 18, 1887. Grand Manan, N.B. Four eggs, fresh. White, heavily spotted chiefly near the larger ends, with olive-gray and burnt umber: .73 x .53; .73 x .51; .79 x .52; .71 x .51.

Set VII. June 18, 1887. Grand Manan, N.B. Four eggs, incubation commenced. Three of them have a pinkish-white ground color, but the fourth is white. All of them are spotted and speckled with russet, more heavily near the larger ends. There are also a few spots of lilac-gray: .76 x .53; .75 x .53; .77 x .53; .76 x .54.

Set VIII. June 20, 1888. Grand Manan, N.B. Four eggs, fresh. White, heavily blotched and spotted with drab. There are also a few spots of bistre and olive-gray. The markings are heavier near the larger ends, but the surface of the eggs is more evenly covered with markings than in any other set in the series: .69 x .47; .70 x .48; .69 x .49; .69 x .48.

Set IX. June 18, 1889. Grand Manan, N.B. Five eggs, incubation begun. Pinkish-white, heavily spotted, chiefly at the larger ends, with bay, hazel and drab-gray: .75 x .54; .74 x .54; .71 x .54; .73 x .54; .73 x .54.

Set X. June 19, 1883. Grand Manan, N.B. Five eggs, incubation advanced. Grayish-white, spotted and blotched with russet and olive-gray. There are also a few spots of bistre on one of the eggs, and the markings are heavier near the larger ends: .75 x .53; .77 x .54; .75 x .55; .75 x .55; .75 x .54.

Set XI. June 18, 1887. Grand Manan, N.B. Five eggs, incubation commenced. White, spotted and blotched with russet and burnt umber, and a few specks of olive-gray. Although the markings are well scattered over all the surface of the eggs, they are heaviest at the larger ends: .79 x .50; .78 x .53; .76 x .53; .78 x .53; .79 x .54.

Set XII. June 20, 1887. Grand Manan, N.B. Five eggs, incubation commenced. Grayish-white, speckled, spotted and blotched with raw umber, russet, and a few specks of olive-gray. The blotches are nearly all at the larger ends, but the other markings are scattered all over the surface: .69 x .51; .70 x .51; .71 x .53; .71 x .53; .68 x .51.

Set XIII. June 21, 1889. Grand Manan, N.B. Four eggs, incubation commenced. White, speckled and spotted with russet and burnt umber, nearly all at the larger ends, and with a few markings of olive-gray: .69 x .53; .70 x .54; .69 x .54; .71 x .54.

Set XIV. June 13, 1887. Grand Manan, N.B. Five eggs, incubation commenced. Grayish-white, heavily blotched, chiefly at the larger ends, with drab and burnt umber. There are also a few specks of olive-gray: .73 x .54; .74 x .54; .75 x .54; .75 x .54; .75 x .54.

Set XV. June 21, 1888. Grand Manan, N.B. Four eggs, fresh. Greenish-white; three of the eggs are profusely speckled with mouse-gray. At the larger ends the specks (there are no spots) become confluent. The fourth egg is speckled all over (more thickly at the larger end) with tawny-olive: .74 x .54; .70 x .54; .70 x .52; .71 x .54.

Set XVI. June 11, 1885. Grand Manan,

Mar. 1890.]

AND OC

N.B. Five eggs, fresh. Greenish-white, spotted and speckled, more heavily at the larger ends, with burnt umber and drab: .71 x .52; .68 x .49; .70 x .51; .71 x .51; .65 x .48.

Set XVII. June 17, 1885. Grand Manan, N.B. Four eggs, fresh. Greenish-white, speckled with mouse-gray. Near the larger ends the markings are much heavier, where they form indistinct wreaths: .68 x .54; .68 x .54; .69 x .54; .70 x .54.

J. P. N.

O. & O. XV. Mar. 1890 p 41-43

Dendroica Blackburnian

1889 Mass.

May 17 Concord. - In the pine woods below Ball's Hill, where I found a ♂ in June, 1886, we heard at least four different birds singing to-day. They kept in the upper branches of the taller pines and were very hard to find although they sang almost incessantly. Probably all were migrants newly resting for a day or two on their northward journey.

I noted the song on the spot as follows: Tee, tee, tee-e-e-e Song
^{the first two notes on the same key the others}
ee-ee-ee ^{rising to the last.} The tone is somewhat metallic ~~but the~~
 or perhaps rather tinkling as of pieces of glass clashing together.
 It has also a ^{burrowing} guttural quality but it is less guttural than that of Parula. The terminal portion is, however, much like that of the latter's song, running, ^{sharply} ~~himself~~ upward to the last note. One ♂ heard to-day varied this song or rather substituted for it every now and then a simple chee-chee-chee-chee all on the same key and very like a trill and not uncommon variation of the Oriole's (*Miniotitta*) song. Indeed I was unable to distinguish the two (*Miniotitta* happening to be singing this strain at the same time in a neighboring tree) save by a ~~sharp~~ trill of the ~~guttural~~ clashing quality above mentioned in the Blackburnian's voice. The chirp of *blackburnian* is much like that of *virens* but ^{is} a shade sharper and ~~rather~~ ^{considerably} feebler. Call note

July 17 Sudbury. Faxon & Torrey heard a ♂ singing in white pine woods near the Wayside Inn.

Sept. 19 Belmont. - One seen } W. Faxon
 " 23 Waltham. - " " }

Occurs since in autumn.

Dendroica Blackburni

1890 Mass.

May 5 Wichendon - C. E. Bailey reports them abundant and in full song at this date.

" 16 Wareley. Faxon found a ♂ in full song in tall willows by a pond near his house (Grey was seen one or two at Melton before willows this).

" 18 Sirlington. Mr. Rodman Peabody saw a ♂ and two ♀♀ in company with Migrant Parulas.

" 11 Brookline. - "Arthur Smith saw about 15 around him at once" (Letter Fred W. Hemmard)

June 10 Sudbury. - In an extensive piece of heavy white pine woods, for the most part swampy with stretches of sphagnum and beds of luxuriant ferns covering the ground. Faxon & I heard two ♂♂ in full song about 100 yds. apart. We saw one of them, a fine bird with flaming orange throat. He kept in the tops of the tallest pines & was very active & animated. Faxon heard a ♂ singing here in July last year & the swamp is doubtless a regular breeding place of the species. Breeding at Sudbury

1878

Sept. 16 Waltham. A young ♂ in autumn plumage in collection of L. A. & Octavia Bangs. Autumn capture

1885 Maine

June Lake Umbagog. Nest four eggs taken by Mr. J. H. Bowditch's brother.

nesting.

1898 Mass.

July 2-4 Glendale (in a near), Berkshire. Three singing in white pines & hemlocks. [Young]

Concord, Mass.
May, 10. 1893.

Dendroica blackburniae.

The Blackburnian, a remarkably fine male, spent most of the time in the big bushes feeding on the sides of the brown branches and singing freely by himself. Once he darted out after I caught a rather large insect which he laid on a short branch - he came within 100 ft. of me. I finally caught it whole with some flies. I afterwards found another Blackburnian singing in the same woods.

Blackburnian
Warbler

Blackburnian Warbler.

Dendroica blackburniae.

Lexington, Mass.

In the same woods a Blackburnian Warbler has spent the summer in full song. I fancy his nest to be in one of the tall and inaccessible white pines in which he commonly sings.

Walter Faxon (letter July 1, 1891).

Dendroica Blackburniae.

Peterborough, New Hampshire.

1898. It would be indeed strange if this species is not at
least common here but the only individual noted was an adult
to
July 5
Aug. 15. male seen by W. Deane, July 19, in pasture spruces on Ben Mere
farm.

Concord, Mass.

1899. A male heard singing on Davis's Hill June 3rd and another
June. at White Pond on the 8th, both in white pine woods. These
Warblers appear to be slowly but steadily increasing and
spreading over the region about Concord during the breeding
season.

Dendroica Blackburniae.

Breezy Point, Warren N.H.

Peculiar song.

1894. W. Faxon and I spent the entire forenoon in the beautiful
June 27. woods between the Moosilauke House and the river. A Black-
burnian Warbler puzzled us at first by his peculiar song:
witchée-witchée-witchée-witchée all the notes on the same key
without the usual high ending, the tone squeaky and emphatic.

General Notes.

Notes on Cape Breton Summer Birds.
Francis H. Allen.

Dendroica blackburniae. One near Indian Brook.

Auk XII, Jan. 1895 p. 90

Birds within Ten Miles of Point
de Mont, Can. Comeau & Merriam

15. *Dendroica blackburniae*. BLACKBURN'S WARBLER.—Rather rare.
Shot June 9, 1882.

Bull. N. O. C. 7, Oct. 1882, p. 234

Birds of Southern New Brunswick
M. Chantreuil.

4. *Dendroica blackburniae*. BLACKBURN'S WARBLER.—These three
species are but rarely found here. In my note-book is a record of one of
each taken during the summer of 1881, and I can learn of none others
having been seen or heard.

Bull. N. O. C. 7, April, 1882, p. 104

Birds of Upper St. John.
Batchelder.

21. *Dendroica blackburniae* (Gm.) Ed. BLACKBURNIAN WARBLER.
—This bird was seldom seen while we were at Fort Fairfield, and was not
met with at Grand Falls.

Bull. N. O. C. 7, April, 1882, p. 109

Notes.

H. Austen took a Blackburnian Warbler at Halifax,
N.S., in May.

O. & O. XIV, June. 1889 p. 95

Birds of Toronto, Canada,
by James H. Fleming,
Part II, Land Birds,
Auk, XXIV, Jan., 1907, p. 84.

254. *Dendroica blackburniae*. BLACKBURNIAN WARBLER.—Regular
migrant, common May 3 to 28, and August 4 to 24; latest fall record
September 23, 1906. This was a rare warbler twenty years ago.

53

Summer Birds of the Cobalt Mining Region,
Nipissing District, Ontario.
by Frederick C. Hubel. Auk, XXIV, Jan. 1907, p. 52.

58. *Dendroica blackburniae*. BLACKBURNIAN WARBLER.—Several
met with. Observed feeding young, July 7.

Notes on Some Birds of Portland, Maine.

N. C. Brown.

Dendroica blackburnia is another Warbler, supposed to have a more northern regular distribution during the breeding-season, which nests every year in this vicinity. It is far from common, however; and I regret to add that the rapid destruction of the forests about the city is tending rapidly to the local extermination of the bird. In fact, in Deering, where I first made its acquaintance, it is now hardly to be found except during the migrations. Young leave the nest about July 10.

Bull. N.O.C. 4, April, 1870, p. 106-107

Dendroica Blackburnia.—Abundant Profile House, N. H. Aug. 1865.

Profile House, N. H. Aug. 1-12-1867.

Dendroica Blackburnia.—Nearly as common as the preceding.
many
seen feeding young.

Dendroica Blackburnia. Aug. 2 Profile House N. H. July 27-Aug. 7. 1886

Summer Birds of Presidential Range,
White Mts. A. F. Chadbourne

34. *Dendroica Blackburnia*. BLACKBURNIAN WARBLER.—Occurs at the base of the mountain; one was heard on July 11, above the second mile post of the carriage road, and another seen at 3800 feet altitude on July 8, 1886.

Auk, 4, April 1887. p. 100

Birds Obsvd. near Holderness, N. H.
June 4-12, '85, and 4-11, '86. W. Faxon

52. *Dendroica Blackburnia*. BLACKBURNIAN WARBLER.—Rare.

Auk, V. April, 1888. p. 150

Bds. Obs. in Franconia, N. H. June 11-21
'86, and June 4-Aug. 1, '87. W. Faxon

66. *Dendroica Blackburnia*. BLACKBURNIAN WARBLER.—Common.

Auk, V. April, 1888. p. 163

Spelbume, N. H.

Dendroica Blackburniae

July.

1884.

A common species in white pine, spruce, and hemlock woods throughout the valley. During the first half of the month they were mostly in pairs feeding young, the males sharing this duty equally with their mates. After the 15th they associated with other Warblers, & with Titmice, Parula's etc. in flocks often containing over a hundred members. The young are fed by the parents until they ^(the young) have nearly perfected the autumnal plumage. The adults did not begin to moult until about the 20th and

Dr. J. L. S. 1884.

1884.

15th 16th 17th 18th 19th 20th 21st
20 24 28 32 36 40 44
= 200

1885.

= 92. 70 1/2 1/2

1886. 15th 16th 17th 18th 19th 20th 21st

found in nearly fine spring also
 were shot after that season. The
 males being fixed up to the 15th
 and a few were heard still
 later, one individual being in
 full song on the 19th. After this
 is the number was suddenly
 increased—probably by arrivals
 from the north—and they were
 now to form a continuous host
 of all mixed flocks in fine
 broods. At these of my more
 young—many larger than Kinglets—
 was met with on July 10, and on
 the same day *Pinus* of full-
 grown young which had separated
 at least half of their fall plumage.
 Both birds were *Setaria* about in
 the type of young birds when
 they lost my little *Setaria*
 clumping hanging but rarely moving
 about. Although the larger ones
 were perfectly able to fly now.

Grouped Notes, 1900 (A. H.)

1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	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65. *Dendroica blackburniae*. — BLACKBURNIAN WARBLER. — Fairly common, ranging apparently with the hemlocks (for which they show a decided preference) from the base to about 2500 feet.

By Alfred H. Howell.

U. S. Nat. Mus. Proc. 1908: 100.

Dendroica blackburniae

Autumnal occurrence in Mass.

Sydney, Mass.
Aug. 18, 1880.

Mr. Tufts has shown me a young bird
of this species taken at above place and date.
It was in company with a ♀ D. tigrina which
was also secured. (See card under D. tigrina)
I think I have heard D. blackburniae in
Mass. in autumn but I cannot recall having
met with an actual specimen before.

Middlesex Co., Mass.

Dendroica blackburniae

1884

East Lexington, Mass.

May 24. Heard two singing in the
tops of tall oaks on Millington
lane and finally discovered
that one a beautiful male
which I gave to Bryant.

Mass (Worcester Co.)

Dendroica blackburniae

1886

Breeding.

Mr. S. Perry of Worcester tells me that
this Warbler breeds sparingly in hemlocks
in Worcester Co. He showed me several
adults killed in June. The species is
often seen in extraordinary numbers during
the spring migration.

Dendroica blackburnia

Breeding at Lynn, Mass.

Lynn, Mass.

Mr. George O. Welch tells me that for many years past he has found two or three pairs of Blackburnian Warblers breeding in a small tract of white pines near Lynn. He can find the birds anytime in June when the males are in full song. He has also seen the mated pairs together but has never succeeded in finding a nest.

* By some oversight, which I can neither explain nor excuse, *Dendroica blackburnia* is omitted in my catalogue. It should have been given as breeding at least as far south as Massachusetts. The latest instance was noticed by Mr. Geo. O. Welch of Lynn last summer.

Mass (Winchendon)

1887

June 25²² - 26¹⁸ (nest 4 fresh eggs June 26)

Dendroica blackburnia.

Birds of Bristol County, Mass.
F. W. Andros.

Dendroica blackburnia (Gmel.), Blackburnian Warbler. Migrant, rare.

O. & O. XII, Sept. 1887 p. 141

Mass. (near Cambridge).

1887

Sept. 23. A young ♂ shot at Grantville by H. W. Henshaw.
It was in oak scrub with other warblers.

Dendroica blackburnia

Bds. Obs. near Sheffield, Berkshire
Oy, Mass. June 17-26, '88. W. Faxon

60. *Dendroica blackburniae*. BLACKBURNIAN WARBLER.—But one specimen observed, a male in full song, in a grove of white pines in Sheffield, June 20.

Auk, VI. Jan., 1889. p. 46

Mass. (Winchendon)

Dendroica blackburniae

1888

both occurrences

Oct. 2

"I shot a young ♀ Blackburnian Warbler on Oct. 2. We had a heavy flight of Warblers here this autumn & they stayed later than usual."
C. E. Bailey obs. Nov. 10. 1888.

Winchendon, Mass. June, 1888

Birds Known to Pass Breeding Season
nr. Winchendon, Mass. Wm. Brewster

Dendroica

66. " *blackburniae*.

Auk, V, Oct., 1888. p. 389

Bds. Obs. near Graylock Mt. Berkshire
Co. Mass. June 28-July 16. W. Faxon

57. *Dendroica blackburniae*. BLACKBURNIAN WARBLER.—Common on the Saddle-Back range from the Notch nearly to the summit of Graylock. On the Graylock carriage road *D. blackburniae* and *D. virens* are the commonest of the Warblers.

Auk, VI. April, 1889. p. 103

General Notes.

Summer Birds of Central Berkshire
Country, Mass. Francis H. Allen. Ralph H. Hoffman

23. *Dendroica blackburniae*. BLACKBURNIAN WARBLER.—A few in Stockbridge; not rare in spruce woods from Becket northward.

Auk XII, Jan. 1895 p. 89

1887

Occurrence in autumn

Sept. 23

A young ♂ in full autumnal plumage
shot in oak scrub in Grantville by
Henry W. Henshaw.

740. Notes from Greenfield, Mass. By S. W. Comstock. - Nesting of
Dendroica blackburniae and *Sitta carolinensis*, etc. O. & O. Vol. VIII p. 70 (?)

Massachusetts Bird Notes.

Dendroica blackburniae. - The peculiar behaviour, akin to that of many ground-nesting species, of a female Blackburnian Warbler whose nest with three young and an infertile egg I found on June 21 of this year in Lynnfield, a small town near Boston, may be worthy of note. The nest was at the end of a long branch of a hemlock, being 18 feet out from the trunk and 30 feet from the ground. Before any attempt was made to crawl out on the branch, the female, alarmed doubtless by a slight movement of the limb, suddenly tumbled out of the nest and fell, in fluttering, fledgling style, straight down through the foliage to the ground, recovering herself at the last moment before touching the earth and flying up into the underbrush. The helpless way in which she fell led me to believe for a moment that a full-grown young bird had dropped out of the nest. Even when there were young in a nest, I never before noticed such behaviour on the part of a tree warbler nesting at such a height.

Dendroica blackburniae is a rare but regular breeder in the town of Lynnfield. It also probably breeds in the adjoining well-wooded towns of Middleton and North Reading, as I have observed the species in summer in both places.

Auk, XVIII, Oct., 1901, p. 399.

The Lynnfield Blackburnian's nest above referred to agrees with a nest of the same species taken in Winchendon, Mass., by Mr. Brewster in resembling "rather closely the nest of the Chipping Sparrow" (Auk, Oct., 1888, p. 392). It is composed of fine hemlock twigs and lined with a few pine needles. It was set firmly in among twigs and was beautifully concealed from view above by a long, full-leaved, horizontal spray, which, arching over within two inches of the structure, made a miniature A-tent for the sitting bird.

J. A. Farley, Malden, Mass.

Blackburnian 1882 May 21 ♂ Full Scaled Grrr Hemlocks
(note note that C. F. S. shot one & saw another same
day same place)

May 22 ♂ F. A. Grrr, in willows right under
Stoll. - saw at least 2 others same place.

(note note that Baldpate same day & place shot one)

Mass.
H. M. Spelman.

1901.

Dendroica Black-burnianLancaster, Mass.June 12

Visited a piece of woods where John Hoyer found a pair of Black-burnians in winter on Jan 10th. The woods cover an area of about 15 acres and are composed largely of very tall & large white pines which must be fairly 100 years old. There is also a smaller growth of oaks, maples & chestnuts & a few hickories & Black-spruces. Two of the best - round trees were of rather large size, all the others would be small. We heard 2 or 3 Black-burnians singing & saw one ♀. The latter came into one of the large spruces where Mr. Halliman was climbing a tree to work on it, & was climbing it but he was not able to see the other birds that were there.

Afterward we visited three woods again. On June 13th we visited three woods again & heard no less than five different ♂ Black-burnians singing there. We spent hours closely observing the upper branches of the pines with our glasses but nothing there looked like a nest nor one old one could be discovered although we looked & looked under our eaves were full of them. Some the birds are building in these woods from which of course is doubt.

Dendroica blackburniae
Waltham, Mass.
Sept 16. / 1878
E. A. & O. Bangs.

240 Beacon St.
Boston, Mass.
Feb. 28. 1913

Dear Mr. Stone

The four black ducks came O.K.
many thanks.

I have a skin Dendroica blackburniae. Taken Sept. 16, 1878 at Waltham, Mass. by my brother E. A. and me; it is a young ♂ in autumn plumage, W. 1036 Coll. E. A. & O. Bangs. Any thing else I can help you in, please let me know.

Yours sincerely
Ostrom Bangs.

Sharon, Mass.

Dendroica blackburniae. BLACKBURNIAN WARBLER. Saw an elegant male in Sharon on May 31, 1907.—SIDNEY F. BLAKE, Stoughton, Mass.

Ark. 26, Apr-1909, p. 198

The Blackburnian and Bay-breasted Warblers at Martha's Vineyard, Mass.—These warblers are quite rare in eastern Massachusetts, therefore it may be well to record the following observations:

Chapman notes in his 'Handbook of Birds of Eastern North America': Blackburnian Warbler, "Cambridge, T. V., uncommon." Bay-breasted: "Cambridge, rather rare T. V."

Howe and Allen in their 'Birds of Massachusetts' say: Blackburnian Warbler: "Martha's Vineyard: 'Transient. Rare.'" Bay-breasted: "Martha's Vineyard: 'Transient.'"

When at my summer place at Oak Bluffs, M. V., which is located in an oak grove, I am usually alert for birds, it being a favorable place for observation. About 10 A. M., May 21, 1905, a most delightful morning, I heard a warbler's song with which I was unfamiliar. Upon investigating I discovered a pair of Blackburnian Warblers (*Dendroica fusca*) in the lower branches of an oak, 15 feet from cottage. They were beautiful, graceful birds; flitting from branch to branch, catching insects, singing now and then; spreading their tails, showing their white webs and their black and white and orange parts showing to perfection. I had a near view of the handsome male and his slightly plainer mate, both being in their faultless nuptial dress. I had waited years for this sight and enjoyed it thoroughly.

September 12, 1914, while exploring the pine barrens near East Chop, Martha's Vineyard, where the Grasshopper Sparrow and the Heath Hen sometimes occur, I encountered a flock of probably 125 migrating sparrows and warblers. I examined several of the latter which proved to be Blackpolls, and then a warbler attracted my attention which had an unusually deep yellow breast. I at first thought it one of the comparatively highly colored, fall Pine Warblers. I quickly lost sight of this bird and searched for another, which I soon found, and by its chestnut flanks and white tail patches I recognized the Bay-breasted Warbler (*Dendroica castanea*). There were surely two in the mixed flock and doubtless more.—CHARLES L. PHILLIPS, Taunton, Mass.

Auth. XXX 11. Apr. 1913. p. 230-231.

Warbler Notes from Rhinebeck, N. Y.—One of the most remarkable features of the past spring migration has been the abundance of the rarer warblers. My notes are based on daily observations made over an area of about two hundred and fifty acres of mixed woodland, lawns and marshy ground. The species of warblers to which I wish to make especial reference are the Blackburnian, Cape May, Tennessee, Bay-breasted and Wilson's Warblers.

Contrary to the usual dates, the Blackburnian Warbler has arrived in the past three years on April 29, May 5 and May 1, respectively. This year the height of its migration was reached on May 19, when eight were observed. It was last seen on the 29th. The Cape May Warbler also has been coming ahead of schedule time, on May 4, 8 and 2. In 1916 it was pretty steadily present until the 27th and five were observed on three occasions.

But the most remarkable increase has been shown by the Tennessee Warbler. Up to 1915 I had only one spring and one autumn record of the species. In 1915 it was observed several times from May 6 to 20, three being recorded on the 19th. In 1916 it did not arrive until the 10th, but immediately became the most conspicuous and constant songster of the entire family, as many as half a dozen answering each other from adjacent tree-tops. The climax of its migration was reached on May 22, when sixteen were recorded and it remained common until the 29th. One straggler was observed on June 2.

I usually see not more than five or six Bay-breasted Warblers in a season, but this year they were constantly present from May 11 until the 29th, twelve being recorded on the 19th. Wilson's Warbler also arrived on the 11th and stayed till the 29th, singing freely and as many as four being seen on two different days.

One other unusual occurrence was a visit from a Blue-winged Warbler in full song on May 19, as Dutchess County is beyond the normal range of this species. The 19th of May marked the turning point of the warbler migration and twenty-three species were noted on that day.—MAUNSELL S. CROSBY, Rhinebeck, N. Y.

Auth. XXX 111. Oct. 1916. p. 437-437.

Birds of the Adirondack Region.
O. H. Merriam.

39. *Dendroica blackburniae* (Gmelin) Baird. BLACKBURNIAN WARBLER.—Common summer resident. Breeds in tall pines.

Bull. N. O. C. 5, Oct. 1881, p. 227

Arrivals of Mig'y Birds, Spring-1886.
Central Park, N. Y. City. A. G. Paine, Jr.

May 11, *Dendroica blackburniae*, (663). Blackburn's Warbler.

O. & O. XI, Aug. 1886, p. 125

Oneida County, New York,
William L. Ralph & Egbert Bagg

Dendroica blackburniae.—Breeds. Mr. Hughes found a nest containing young in July, 1887, near Remsen. July 16, 1888, we took a nest about four miles north of Holland Patent, which contained four eggs on the point of hatching. The nest was well concealed in a bunch of small branches, about fifteen feet above the ground, in a spruce tree. It was composed of hemlock and spruce twigs outside, then pine needles and dry grass, and lined with horsehair. The eggs (which we were unable to save, they were so near hatching), were large for the size of the bird, and darker colored than is usual with Warblers' eggs.

Ank. VII. July, 1890, p. 231.

Some Birds of Lewis Co, N. Y.,
O. Hart Merriam

In the Eastern (Adirondack) region
D. blackburniae, is found breeding

Bull. N. O. C. 3, April, 1878, p. 53

Notes on the birds of Madison County, New York,
with especial reference to Embury's recent list.

25. *Dendroica blackburniae*. BLACKBURNIAN WARBLER.—Given only as a "common transient visitant." Mr. Miller states that the Blackburnian is "tolerably common" at Peterboro; and I have found it to be a regular but rather rare summer resident among hemlocks in mixed woods on the Stockbridge East Hills.

By William R. Maxon.

Ank. XX, July, 1903, p. 265

Mr. R. J. Hughes has found two nests of the Blackburnian Warbler (*Dendroica blackburniae*), near there, one in 1866 and one in 1887, both unfortunately with young.

Remsen, Oneida Co. N. Y.
O and O. XIII. April, 1888, p. 68

Loomis, Birds, Chester Co. S.C.

31. *Dendroica blackburnia*. BLACKBURNIAN WARBLER. — Rare during the northward movement; very common in the southward. The former progress apparently takes place at the end of April and during the early part of May, and the latter, from about the beginning of the second week of August to about the middle of October—Aug. 8, Oct. 22, the extremes noticed. The greatest rush usually occurs during the fortnight centring around October 1. These late comers are supposed to be North-erners. Individuals often grow exceedingly fat in autumn. They sing while northbound.

Auk, 8, April, 1891, p. 170-171

Obs. on ~~Summer~~ Birds of Mountain
Fors. Pickens Co, S.C. L. M. Loomis. X

54. *Dendroica blackburnia*. BLACKBURNIAN WARBLER. But three specimens were obtained—two adult males, in full dress, June 18 and 21, at about 2500 feet; a female, moulting, June 24, above 3000 feet. All were in hardwood timber. The testes of the males were not larger than a pin's head of ordinary size.

Auk, VII, April, 1890, p. 127.

Cherrie, Birds, San Jose, Costa Rica.

14. *Dendroica Blackburnia*.—First arrivals were noted August 17, 1890, and the second August 20, from which time they were common until the first of October, when they were very abundant and remained so until the 7th, when all disappeared. The first arrivals were nearly a month earlier than in the fall of 1889.

In a series of 50 Blackburnian Warblers taken chiefly in the vicinity of San José there is not one in adult plumage. Perhaps the brightest bird in the collection is a female, taken by the author October 3, 1890, with throat and breast rich cadmium orange, but the white wing-patch is replaced by the two wing-bars of the young bird, and there is considerable grayish brown in the upper plumage. While there are a few males and females like the one described above, the bulk are very much paler, ranging from the bright cadmium orange to a pale yellowish buff on the throat and the breast, with the crown patch almost obsolete, the back and streaks on the sides dusky brownish.

Auk, 8, July, 1891, p. 278

1887

Nest & eggs taken

June 7

Mr. Robert Perry (of Worcester) took a nest and four fresh eggs to-day about four miles from Princeton. He found this nest about ten days ago when the ♀ was at work on it. Since then "she had taken it down and moved it to another place."

Notes on Birds of Winchendon, Mass.
William Brewster.

Dendroica Blackburnian.—On both high and low ground, wherever there were spruces in any numbers, whether by themselves or mixed with other trees, and also to some extent where the growth was entirely of hemlocks, the Blackburnian Warbler was one of the most abundant and characteristic summer birds, in places even outnumbering the Black-throated Green Warbler, although it shunned strictly the extensive tracts of white pines which *D. virens* seemed to find quite as congenial as any of the other evergreens. A set of four fresh eggs was taken June 26, 1887. The nest, which was found by watching the female, was built at a height of about thirty feet above the ground, on the horizontal branch of a black spruce, some six feet out from the main stem. Its bottom rested securely near the base of a short, stout twig. Above and on every side masses of dark spruce foliage, rendered still denser by a draping of *Usnea* (which covered the entire tree profusely), hid the nest so perfectly that not a vestige of it could be seen from any direction. This nest is composed outwardly of fine twigs, among which some of the surrounding *Usnea* is entangled and interwoven. The lining is of horse hair, fine, dry grasses, and a few of the black rootlets used by *D. maculosa*. The whole structure is light and airy in appearance, and resembles rather closely the nest of the Chipping Sparrow. The eggs measure respectively: .68 X .49; .66 X .50; .69 X .49; .68 X .51 inch. They are marked with pale lavender, vandyke brown, mars brown, and black. Over most of the shell the markings are fine and sparsely distributed, but about the larger end they become broad and more or less confluent, tending to form a wreath pattern. Some of the black markings are linear, resembling pen scratches. The ground color of these eggs before blowing would have passed for dull white, but with the removal of their contents a delicate, yet faint, greenish tinge appeared and has since persisted. This greenish tinge was also a characteristic feature of eight eggs (representing two sets) taken by Mr. Bailey at Winchendon before my arrival in 1887. Lest the identification of the above-described set be questioned, I will add that the female was seen to enter the nest, and that both she and her mate were shot and preserved.

Ank, V, Oct., 1888. p. 391-92.

Birds of Western North Carolina.
William Brewster.

73. *Dendroica blackburniae*. BLACKBURNIAN WARBLER.—In Jackson and Macon Counties this Warbler was abundant everywhere above 3000 feet, but I heard only one in Yancy County,—on the side of the Black Mountains at 3300 feet. On the crest of the Cowee Range, and about Highlands, they were among the commonest and most conspicuous woodland birds, frequenting old oak timber interspersed with hemlocks or bordering hemlock swamps. In these evergreens they were evidently breeding, or about to breed, for the males were in full song and paired, and I noticed that each had its particular hemlock which it guarded with jealous care, driving away all other small birds that came into or near it. The song here was peculiar, but still not sufficiently so as to be unrecognizable. Several males which I shot near Highlands differ from northern specimens in having the orange of the throat duller and paler.

Auk, 3, April, 1886. p. 174

Mass. (Concord)

Dendroica blackburniae

1886 Breeding in Middlesex Co.

June 11

In a tract of fine old oak and white pine timber covering several hundred acres on the west side of Concord River just above Carlisle Bridge I found a ♂ Blackburnian this morning. It was in full song and its shrill, ascending zee, zee, zee-ee-ee first attracted me to the spot where it was singing, high up in a giant pine. On shooting and dissecting it I found the testes and the anal glands as well, swollen to the maximum size. There was a single tall slender black spruce near the spot.

W. Middlesex Co. Mass.

June 25-30, 1889.

Dendroica blackburniae

One in West Townsend, a male feeding young just from the nest. Generally distributed in the country about Ashby, but found chiefly in spruce and hemlock woods on low ground. Very abundant on the sides of Mt. Watatic in heavy spruce forest. The males in full song during our stay. The song of this species has at least three regular variations. It approaches at times the song of the Black and White Creeper and at others of the Blue Yellow Back Warbler.

Notes from Greenfield, Mass.

S. M. Comstock

While collecting on the 18th of June I found a nest of *Dendroica Blackburniae*, Blackburnian Warbler, which contained three eggs; and to identify them I shot the female. The nest was situated about thirty feet high in a maple tree. It is a very plain structure resembling that of the Purple Finch. The eggs are white with a bluish tint and spotted with reddish-brown and lilac, chiefly about the larger end

Nest and Eggs of the Blackburnian Warbler.—On the 23d of May, 1879, my lamented friend, the late A. Jennings Dayan, pointed out to me, high in a lofty pine, the yet unfinished nest of the Blackburnian Warbler (*Dendroica Blackburniae*). The exact locality was a grove of large white pines (*Pinus strobus*) on a dry hill just east of Black River, at Lyon's Falls, Lewis County, New York. Some days previously Mr. Dayan had observed the female bird carrying in her bill a downy substance which afterwards proved to be the tufted seeds of the cat-tail. By the aid of a field-glass, after many hours of patient watching, he finally discovered the nest. On the 2d of June he ascended the tree and secured the prize. It was saddled on a horizontal limb twenty-five and a half metres (about eighty-four feet) from the ground, and three metres (about ten feet) from the trunk. The limb measured 15 mm. in diameter where the nest was attached. The nest contained four fresh eggs of the Blackburnian Warbler and one of the Cowbird (*Molothrus ater*).

Authentic published descriptions of the nest and eggs of this Warbler are so few in number, and so meagre in exact details, that I make no apology for presenting the following: the eggs measure, respectively (all measurements being in millimetres), 12.80 X 17.60, 12.60 X 17.80, 12.60 X 18, and 12.80 X 17.60. The ground-color is pale bluish-green, spotted all over with umber-brown of varying intensity, the spots tending as usual to form a ring at the large end. One differs from the rest in being well sprinkled with blotches of rich dark-umber, which coalesce into a broad zone around the large end. The nest is large, substantial, and very compact. It consists almost entirely of a thick and densely woven mat of the soft down of the cat-tail (*Typha latifolia*), with seeds attached, and is lined with fine lichens, horse hair, and a piece of white thread. On the outside is an irregular covering of small twigs and rootlets, with here and there a stem of moss or a bit of lichen. The outside diameter of this rough envelope is 135 mm.; outside diameter of cup or nest proper, 74 mm.; outside height, 53 mm. on one side and 42 mm. on the other. The inside of the cup measures 50 mm. in diameter and 29 mm. in depth.—C. HART MERRIAM, Locust Grove, N. Y. *Auk*, 2, Jan., 1885, p. 103

Birds of Kalamazoo County, Mich.

Dr. Morris Gibbs.

40. [103.] *Dendroica Blackburniae* (Gm.) Baird. Blackburnian Warbler.—Arrives from April 24 to May 11. The large majority pass north, but a few remain to breed in the county. Mr. Benjamin F. Syke has had the good fortune to secure two nests with eggs of this species. Both nests were placed on limbs well up in Tamarack trees. One was all of forty feet from the ground. The Blackburnian is again common in September and all do not leave us until early October.

O. & O. X. Mar. 1885, p. 39

Summer Birds of Buncombe County, N. Carolina. John S. Cairns.

Dendroica Blackburniae. Blackburnian Warbler. Summer visitor; rare. Have taken the young, but could never find their eggs. Have never observed them higher than 3,500 feet.

O. & O. XIV. Feb. 1889, p. 21

LOGIST

[Vol. 11—No. 9

the richness of his breeding plumage and in the busy occupation of domestic cares.

ag of June 10th, as the first streak ble in the east we left the little stration, on our toilsome journey f Mt. Bigelow. Along the river rily the morning mist, through rry hemlocks, scattered here and rings, loomed up like the pyra- Nile, as we tramped through the to the forest edge. The trail was l with a scarcely perceptible rise oder the oaks and birches until we st look-out," where a glance at the ntry told plainly that our steps d as well as onward. While we reakfast the aspect changed, over the rising sun appeared, covering s with a halo of glory, while their s presented a yet stronger contrast alley seemed like some beautiful with a moulding of black and n concert was not lacking. From e Hermit Thrush gave vent to his spirits in an exquisite song. The f the Junco, and the whistle of the Sparrow blended without discord bed together on a decayed log in s. The Chickadees apologized for leficiencies by a display of faml-ling their moresouthern congeners. ed on our way, now growling re difficult, a Canada Jay, brinful lowed us for a considerable dis- for an occasional flirt of its tail, approval of our actions, but soon a hoodlum band of his blue brothers came trooping noisily along, and pouncing upon him drove him away. Evidently the question of fannal areas had been discussed in Jaydom and Mt. Bigelow was unquestionably within the domains of *O. christata*. Ere long we entered the evergreen growth and leaving the path we picked our way the best we could over the fallen trunks on a short cut to the summit. The bare rocks and blueberry patch of the "knob" was reached in due time (not being a professional mountain climber I decline to state the time occupied in the ascent) and the magnificent panorama of the country from Moose-head to Umbagog lay before me, with its numer-

Sept. 1886.]

AND O

and small boulders to enjoy the fine view to be there obtained. How rapid is the change from the sublime to the ridiculous. On stepping forward a pace, the stone on which I was standing gave away and in the endeavor to regain my footing, a small landslide precipitated me in a very undignified manner down the declivity until I "fetched up" under a large hemlock. Fortunately my body was covered with gravel instead of bruises, and in a comfortable position I remained for a brief period, resting from the effect of my rapid transit. A slight movement among the lower branches of the tree caused me to look up and soon I saw eyeing me closely a male Blackburnian Warbler. Any motion on my part would cause him to bestir himself in an agitated manner, and when I arose to my feet he disappeared. Patient watching was rewarded by seeing the bird fly into the top of the hemlock, when the small commotion which ensued caused me to believe that a nest was therein placed. Casting off all superfluous clothing I began the ascent, a laborious task, but the end proved my conjecture aright, for a nest of this Warbler was placed on a limb at about sixty feet from the ground. It was composed outwardly of hanging moss (*usnea*) woven compactly with a few bits of fine bark and twigs, lined with the usual material, hair and feathers. The eggs were four in number, nearly fresh. They were spotted sparingly with reddish-brown over the entire surface, with the addition of a wreath of same color about the larger end. Dimensions of the set are as follows: .66x.51, .66x.50, .65x.51 and .64x.50. /36/

O. & O. XI. Sep. 1886, p. 136/

CLIFF AND F. L. WEBSTER.

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Birds of Kalamazoo County, Mich.

Dr. Morris Gibbs.

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O. & O. X. Mar. 1885. p. 39

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O. & O. XIV. Feb. 1889 p. 21

LOGIST

[Vol. 11—No. 9]

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LOGIST

[Vol. 11—No. 9]

Notes on Some Birds of the United States which Occur in the Mexican Fauna.

BY JUAN RENARDO.

[Translated from the Author's MSS., by F. H. Carpenter.]

(Continued from Page 117.)

Vireo flavoviridis, (Yellow-green Vireo). Not commonly observed. Specimens were collected at Tampico and Merida in the autumn. Have seen them in summer very near the Rio Grande, where they probably breed.

Vireo gilvus, (Warbling Vireo). Often observed in numbers about Tampico, and in winter as far south as Merida they are common.

Vireo solitarius, (Blue-headed Vireo). I did not observe this bird as frequently as one would suppose. A few were taken along the Rio Grande in late autumn. In mid-winter I have seen them between Merida and Guatemala.

Vireo solitarius cassinii, (Cassin's Vireo). Two were taken near Guaymas in summer which bore marks of breeding. They are fairly common in autumn when passing south.

Vireo atricapillus, (Black-capped Vireo). Common in the breeding season. Have found nests in the Rio Grande valley. Seen in winter about Campeche.

Phainopepla nitens, (Phainopepla). Notwithstanding the reports of this species being common in this country, my only specimen noted is the one sent, which was taken about ten miles from Tampico.

Tachycineta thalassina, (Violet-green Swallow). Seen on 24th before me with its number 2.

CLIFF and F. B. WEBSTER.

trees, and which gave an equality of the two varieties. Proceeding still further up, I found a few birds of this species, but the majority seemed to prefer an admixture of the hard wood growth. At Roane county, in the Walden ridge, this Warbler was found to select the spruce growth at a higher altitude than on Great Smoky Mountain; perhaps the southern slope of Walden necessitated a higher rise to equal the same temperature of the northern exposure of the Great Smoky chain. The movements of the Blackburnian Warbler define quite plainly the faunal lines of this country. The three faunas so well known to New England or Eastern North America, the Canadian, Alleghanian and Carolinian, give to this region all of their distinctive features; the extreme mountain heights representing the Canadian, the Alleghanian from about 4,000 feet altitude down to the Carolinian, which meets it at about 2,000 feet. Mr. Brewster gives altitudes at about 500 feet higher in each instance, in his observations in North Carolina, but the localities must vary as the figures given above are correct for this region, as great care was taken in determining the faunal lines.

Several readings of the thermometer were taken at various heights. On May 21st, in the valley, the mean temperature was 48°. May 22d, at about 2,500 feet, the mean was recorded at 42°, and at 4,000 feet the mean was 38°. Less variation was noted at the latter height, the mercury not rising higher than 44°, while in the valley 60° and 36° were the extremes on May 21st. The especial value of the above thermosatic notes in determining the relative temperature comes from the fact that in the valley the thermometer was the same on all three days, viz., 60° as a mean record. I found the Blackburnian Warbler a true type of the Canadian fauna, hence the above notes in connection with it. The Blackburnian Warbler despite the fact of keeping in nearly similar surroundings, breeds earlier than those of same species which penetrate farther north. A nest was found by my cousin, who accompanied me, on May 31st. It was placed on the horizontal limb of a fir (*Abies fraseri*) and not so compact as one found by Mr. F. H. Carpenter at Mount Bigelow, Maine. It was almost as flimsy as that of the Chestnut-sided Warbler, and contained only one egg. The female sat upon the edge of the nest and would not leave it until the outstretched hand was within a few inches. Upon leaving it undisturbed she immediately resumed her former position and in a few moments, the male brought a larger specimen of *Ephemerida*, which they both were obliged to industriously viscet in order to swallow.

DENDROICA BLACKBURNI.
Blackburnian Warbler.

This beautiful little Warbler arrived in Monroe county on April 23d, that being the date of first observation; on the following day they were seen quite commonly. These birds were noticed only along the edges of the open fields, some distance back from the mountains, and in company with Chestnut-sided and Yellow Warblers. Up to May 3d, I saw them only in such places, when on that date I observed a single one in the mixed growth of oak and chestnut on the mountain sides. During the first week in May they were very common, but about May 10th they diminished in numbers, and by the 15th not one could be found in an entire day's tramp. On the 18th a severe rain storm accompanied by a cold north-east wind occurred, and on the following morning a few were seen gleaning insects in the developing foliage of the water oaks (*Quercus aquatica*) and a number were seen in the oak forests on the mountains, but by night they had disappeared and none were seen the next day. An ascent of Smoky Mountain, in Blount county, on May 25th, discovered to me this handsome Warbler in full numbers. They were principally met with at about 3,000 feet altitude on the dividing line between the spruce (*Abies nigra*) and the deciduous

C. + C. X1. Aug. 1884. p. 116.

Vol. XIV.

BOSTON, MASS.

Nesting of the Florida Burrowing Owl.

Late in the fall of 1888 it was my good fortune to find the owl towns in the great prairie which stretches away northward from Lake Okechobee. Good fortune I say, but it was not an ordinary every day bit of good luck. Ten days I had been tramping over the seemingly endless prairie before I found my first owl burrow, and it was over two weeks before I secured the first specimen of the bird, which was about the only reward for my long and fatiguing trip.

Before going out I made diligent inquiries among the "cow boys" regarding the habits and locations of these interesting birds. All had seen them, and could describe vividly their looks, note, and actions, but all failed to locate any of their towns. This seemed to be due to two causes: First, because no one really cared where the owls lived, and second, when hunting or cattle-driving, there was too much else to look after, to make any accurate examination of the spot where the birds were seen. So it went out of mind at once. But, after I met with some of the Seminoles, the case was entirely different. Nothing escapes their observation. They have names for even the smallest and most insignificant looking birds and plants, and their confidence once gained, they will tell you anything you want to know, provided, of course, you can understand their very peculiar language.

They told me that "the owls had all gone from the prairie." This I found almost literally true. Town after town was visited, and every burrow that showed any signs of having been recently inhabited was grubbed out from end to end, until at last, after two weeks of patient work, the coveted specimen was seen.

Now the fun began in earnest. That bird I was bound to have, but he seemed to know the exact range of a gun. Not only that, but he

return again, the female carrying a long grass blade. The male stayed close by her. They went direct to the nest, thirty feet up in the far out tip of a branch of black spruce. I saw them go back and forth many times, the male simply keeping his mate company.

The first nest was placed against the trunk, and upon a small branch which sprang from the tree at a height of twenty feet.

The nest before me has a light platform of fine, dead twigs of the spruce. Into this is neatly woven a considerable quantity of *Usnea*, then a sufficient lining of finely shredded, inner bark of the bass wood, with a few long horse hairs, and a number of deer's hairs. The rim of the structure is *Usnea*, neatly matted and twined, holding all together. Then the exterior is flecked all over with fluffs of cottony spider's webbing. Altogether it is an elegant work of art. It measures three inches across by one and a half inches in depth, thus being quite shallow. The depression in this is very shallow and small. It contained two fresh eggs of the owner and one of the Cow Bird, and at the foot of the tree were fragments of two more eggs which had been crowded from the nest by this parasite.

In the second nest the materials were similar to those in the first with the addition of some soft grasses. It had been placed in the fork of a horizontal branch near the tip and five feet from the trunk, thirty feet from the ground. Over this branch grew another, which lay close upon it, concealing the nest from every way. This set consisted of three eggs, with one of the inevitable Cow Bird. The fourth egg lay broken on the ground. The eggs when fresh are rich, much resembling those of the Chestnut-sided Warbler.

With all the tugging and slipping I did in drawing myself up by means of those drooping, rope-like branches, and with all the jolting the tree had in consequence, the bird remained close, never uttering a protest. So gentle and patient was she, I came well-nigh leaving her in possession of her treasures.

J. W. Preston.

Baxter, Iowa.

O & O. XIV, Mar. 1889 p.34-35

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their appearance. Soon both fell shortly to

The Blackburnian Warbler at Home.

Having ever admired the lovely little creature—the subject of my sketch—and never having become acquainted with him, save as a transient visitor, when he rested for a time on his long journeys, it was with keen delight that I followed him on his home-going in the spring of 1887.

Often have I watched these charming birds, as they moved about quietly among the foliage in search of food; but very little of their real nature did they disclose to me; never a note nor a chirp; silent and satisfied they soon hurried on.

Occasionally they are overtaken by a sudden cold snap, and then their plight is pitiable.

Once while traveling in northern Iowa, during the month of April, a bitter cold spell of weather came quickly upon the track of a warm bright time, and I remember that in the town of Clarion many small birds had drifted into the more sheltered localities to escape the biting blast that had met them while crossing those treeless prairies. Among them was a little Blackburnian Warbler, so chilled that it did not object to being held in my warm hand. Perhaps it blessed me for the kindness; at any rate, I know that nothing in that eventful collecting tour gave me greater pleasure.

The first time I saw this species was upon a fine spring morning at the old home near Newton, Iowa, when a small flock of male Blackburnians, with some Black-throated Green Warblers, spent a forenoon among the evergreens and shrubbery in my father's yard.

They were very tame, permitting my sister and myself to approach within a few feet of them, where we watched their movements for a long time, charmed by their brilliant garb and dainty actions as they flitted here and there among the new leaves or the bloom-laden plum trees. Little did I then hope to see them in glad abandon, where tangled spruce and hemlock marches—which abound in the wooded lake region of northern Minnesota—offer them a perfect home. During May and early June the males were in constant song. Perched upon a dry and broken branch of some

tall, old hemlock, one of these dauntless fellows will sit for hours in the warm sunshine, pouring forth his matchless melody. But let another male intrude upon his domain, and in a twinkling the song ceases and the songster is transformed into as much fight as his little feathers will contain. As soon as his jaunty foe is driven away, the perch is resumed, and his victory is heralded forth in ecstatic strains.

These thrilling notes of love-making are difficult to represent, somewhat resembling the song of the Black-throated Green Warbler, but to my notion, richer and more lively, and he is not at all afraid to come out and show himself. In fact he is a little vain of his flaming throat, and evident prowess in song. While thus a conspicuous object in these secluded wilds, his modest mate is gliding in and out among the thick foliage of the black spruce. One will start near the ground, and by hopping from branch to branch, soon gain the close, conical top, from which it lightly falls to another tree, and so continues its search. In the locality where I observed them, the black spruce (*Abies nigra*) seemed to be their favorite; and a right good protection it is for the home-making, for when thickly draped with the long wands of pendant *Usnea*—"Old Man's Beard,"—it is well nigh impossible to detect either the bird or nest. And it is only by watching the female, while carrying material, that one is likely to find the nest, and even then it is not an easy task. I spent many days before finding the first nest, and, at the time, there were two pairs building within a small radius, in a close set marsh.

On the morning of May 20th, while waiting near the corduroy road, which crosses this marsh at a certain point, a female Blackburnian Warbler flew to the middle of the road and began tugging away at some hairs, which were secured, and carried into the thick, young hemlocks. This it repeated often, and my most earnest efforts failed to detect where she went. Three consecutive days she continued at her task, leaving me as much in mystery as at first.

Several days later, by chance, I espied the bird contentedly sitting upon her eggs, up in a hemlock tree. Shortly after I detected another pair building, and was more fortunate, for while standing silent at the edge of a small opening during a shower, a male Blackburnian came out on top of a black spruce, and after pluming himself, flew away, to return in the course of half an hour, when they both made their appearance. Soon both left shortly to

return again, the female carrying a long grass blade. The male stayed close by her. They went direct to the nest, thirty feet up in the far out tip of a branch of black spruce. I saw them go back and forth many times, the male simply keeping his mate company.

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J. W. Preston.

Baxter, Iowa.

O & O. XIV, Mar. 1889 p.34-35

Nesting of the Blackburnian Warbler.

Last June, my brother and I left Boston to visit a friend who had a place near the foot of Mount Monadnock, N. H. The morning after our arrival we started for a stroll down the road which ran by the house—he with a fishing rod, I with a gun—and after a while came to a grove of thirty or forty large hemlocks, from sixty to seventy-five feet high.

As there did not seem to be anything there we were about to continue our walk, when I heard a note something like the song of a Black and White Creeper but much stronger, and almost immediately discovered a Blackburnian Warbler (*Dendroica Blackburnia*) perched on a maple near the grove. But we were seen at the same instant and the bird with its mate, which was near by, flew off over the tree-tops, leaving us without any hope of seeing them again. All the same, we concluded to look around the grove, but could find nothing but two Chipping Sparrows' nests and a suspicious looking bunch near the end of a branch of one of the hemlocks, about sixty feet from the ground. But as such bunches are common enough anywhere, and we could see the sky through this one, I thought it would be of no use to examine it more closely. Therefore we went on down the road but did not find anything else, excepting one trout and three "suckers" that my brother caught.

The next day we passed the grove again and again we heard the Blackburnian Warbler singing. Thinking it strange that it should have come back, we crept into the grove as quietly as possible and had just come to the point from which the "bunch," found the day before, could be seen through the branches, when the Warbler, with its bright orange throat contrasting strongly with the dark background of the grove, darted out of the trees a little way off, straight up to the bunch, and, hovering over it an instant, settled down upon it. I have never found a nest so suddenly and unexpectedly as this one, and I was not long in getting up to it. Then I could see three eggs, but could not reach them as they were too far out on the branch. Wishing to get the full set, we left the nest until next day, when I succeeded in getting the nest by tying the branch to the one above it and then cutting it off, after which I drew it in and thoroughly enjoyed looking at the eggs, five in number, before touching the nest.

As soon as I commenced cutting off the

branch, both birds who, until then, had only watched from a distance, became very much excited and began flying around, sometimes within two or three feet of me, and uttering sharp chirps. One of them lit on the branch, although it was shaking considerably, so that there can be no doubt that it belonged to them. But in order that there should be no doubt at all I shot the male, who, when he saw that he could do nothing, had perched himself on a neighboring branch where he was pluming himself as if nothing had happened.

The nest was about sixty feet from the ground, seven feet from the trunk of the tree and four inches from the main stem of the branch. It was set into a thick cluster of rather small twigs which held it firmly so that it could not blow away; for, with the exception of the last morning it was blowing a gale, day and night, during our entire stay. It is composed of hemlock twigs, rootlets and a few pine needles, with here and there a bit of Spanish moss, all woven rather loosely together and lined with horse-hair. The diameter externally, three and a quarter inches; internally, two inches, and it is two inches deep. The bottom is so thin that it can easily be seen through,—it was this that almost caused our overlooking it.

The eggs vary very little in size and shape, being .68 x .53, .67 x .54, .67 x .54, .67 x .53, .67 x .53. They are greenish-white in ground color, spotted and blotched all over, but most thickly at the larger end, with different shades of purple and brown which in some is nearly black. They were collected June 7th, and incubation had just begun, so that they must have been all laid when the nest was first found, although I could see only three. C. W. B.

2.27. 1897. 157.

dominica

CAPTURE OF THE YELLOW-THROATED WARBLER IN MASSACHUSETTS,

In the collection of Mr. George E. Browne of Dedham I saw, a few days since, a Yellow-throated Warbler (*Dendroica dominica*) that was shot by him on the banks of Charles River in that town nine or ten years ago. This is a new bird to the State and the second New England record.

H. A. Purdie, Newton, Mass.

Bull. N.O.C. 3, July, 1878, p. 146.

Dendroica dominica.

"Birds of Connecticut" Merriam.

Shelf V, p.17.

Dendroica dominica albilora. [48694] in Brewster coll.

Extracts from letters from George E. Browne of Dedham, Mass.

May 26, 1903. "The Warbler, male, was taken in Dedham on the banks of Charles River on a willow tree on the 4th of Nov., 1865 or 1866. It was a cold disagreeable day and was the only bird seen." To Wm. Brewster.

July 22, 1903. "The Warbler was shot by myself on a willow tree that stands on what is called the town landing & is still there. It was a very cold day on the fourth of Nov. and was the only bird seen. It was late in the afternoon and the tree was bare of leaves. He was very lively gleaning among the lower branches. He was also mounted by myself the next day. When I shot the Flycatcher I did not keep any notes, but later I did keep a few and had the data of the Warbler but was lost with some others on a trip to the cape a year or so after. So that I have never been quite sure of the exact date, but am confident that it was in '66 as near as I can be without swearing to the same." To W. Deane. Letters on file.

Yellow-throated Warbler in Brooklyn, N. Y.—On the morning of April 29, 1917, while walking through Prospect Park, Brooklyn, I was attracted by a loud ringing song quite strange to me, though somewhat suggestive of that of the Indigo Bunting. I easily located the singer in some low maple trees on the bank between the Rose Garden and Flatbush Ave. In its actions the bird was very deliberate, strikingly different from most members of its family in this respect. I was able to approach within a few feet as it was so tame or perhaps exhausted from its unusual journey, and I was thus able to identify it at my leisure.

I could see no trace of yellow in the line in front of the eye which would indicate that the individual belonged to the western race known as the Sycamore Warbler, but as the amount of yellow is variable and the geographical probability is in favor of the Yellow-throated Warbler I leave the subspecific identification open. This is in all probability the same bird seen by Mr. Fleisher (*Bird-Lore*, 1917, p. 150) on the day previous and identified as the eastern subspecies. Later in the day I again saw the bird, in company with Mr. Preston R. Bassett. It was not singing on this occasion but was still so tame and deliberate in its movements that it was easily studied. Since then on subsequent visits to the same locality I have been unable to find any trace of the bird.—RALPH M. HARRINGTON, Brooklyn, N. Y.:*t.*

Arch. Vol. XXIV. July 1917. p. 343-344.

ground color white, the bluish or purplish tinge entirely wanting. Notwithstanding the variation to which the egg is subject, I have seen no other which a dishonest collector could put off for it.

If the bird is successful in rearing one brood, I do not think it attempts a second, but when disturbed in any way will build three times or perhaps oftener, in a season. I have never found it breeding, and seldom feeding, outside of pine timber.

Nesting of the Yellow-throated Warbler.

BY R. B. McLAUGHLIN, STATESVILLE, N. C.

The Yellow-throated Warbler, (*Dendroica dominica*) first came under my observation on April 9th, 1887. I was out in search of nests of the Pileated Woodpecker and had entered a small tract of primitive woods consisting mostly of oaks interspersed with a very large species of pine, usually called "lumber" pine here, to contrast-distinguish it from a smaller variety which is found on the barrens. These pines with their lofty trunks rugged and bare, and their limbs all clustering around in a circle near their tops, which waved majestically twenty or thirty feet above the surrounding timber, were strikingly picturesque and formed the most conspicuous feature of the landscape. From the tops of these pines came the peculiar song of a bird entirely new to me, and though I thought it a migrant, which were then plentiful, some unknown to me, yet I became so much interested in the song that I decided to shoot one of the birds for identification.

I think the pines were from a hundred and ten to a hundred and twenty-five feet high, and the birds had a preference for the top which was very decided, and on leaving one pine flew to another, never seeming to feed in the other trees, though I saw a savage fight between two males in the top of an oak. Judging from their songs, there were about eight males in all which were well scattered over the piece of woodland, and I guess I gave about all of them a call, but found them so high that it was useless to do anything but hold my powder. I suppose the females were arriving since a fight ensued whenever the males met; at any rate, I saw four. I returned a week or more later with numerous intentions and found them still in the tops of the pines, but after some ineffective shooting, killed one, which Dr. A. K. Fisher very kindly identified for me.

all, but built closely to the main body of the tree, the bottom part resting on a short dead stick. It does not contain a sprig of moss nor a lichen as described by Audubon, but resembles closely that of the Pine Warbler, which I hope will be described later, being about half as large and is composed outwardly of about the same materials, yet somewhat finer in quality, and is lined with a quantity of horse-hair instead of feathers. It has one prominent feature, however, and there is some attempt at weaving. I was surprised to see a nest so warm and compact at that time, so far south. I did not see the mother bird but shot her mate which went with the nest and egg to the U. S. National Museum. The egg is white rather heavily spotted with brown.

O. & O. XII. Oct. 1887 p. 171-172

Notes on the Nesting of the Yellow-throated Warbler.

BY WALTER HIXIE, FROGMORE, S. C.

In a recent issue of the O. & O. (October, 1887), two articles appeared on the Nesting of the Yellow-throated Warbler (*Dendroica dominica*). The experience of the two observers seems to be so very different, that it would appear at first as though one or the other of them must be wrong. But when we take into consideration that they are both well practised collectors, and also that there is a wide difference in the localities in which their observations are made, we must pause and seek for a natural explanation of the apparently conflicting facts which they record.

Leaving out of account the difference of locality, it seems as though the habits of the bird itself will almost explain away all these conflicting points. Pre-eminently a searcher for his food, he is no less an adept at fly-catching on the wing, and can also if occasion requires it, do some pretty fair work at picking into the bark and crevices after the manner of the Nuthatches and Tits. In fact, I remember once seeing a pair of Yellow-throated Warblers shower down so much bark and rotten chips

from the partially decayed limb of an oak, that I was quite suspicious that they were excavating, or at least enlarging a hollow in which to build; and I do not think it would be a surprising fact to find a nest in such a location.

A general rule for all birds seems to be that the greater their range of adaptability to obtain subsistence, the greater is their range in nest architecture. This observation does not necessarily imply a wide geographical distribution, which would of itself explain much of the local variation in nesting habits. But a bird that inhabits the moss-shrouded swamps of the sea coast, the open sunny pine barrens of the back country, and even extends his range into the hard wood forests of the foot hills, must of necessity be well able to rear his young in such widely different places as a bunch of hanging moss or an open nest placed against the trunk of a pine tree.

O. & O. XII. July, 1888 p. 100-101

The birds lingered so long that it was evident they were preparing to breed and I was becoming more interested, and though seemingly useless, could not resist a desire to search for their nests. I visited the colony with that intention, about the last of April, and finding the warblers in the highest pines only, naturally concluded their nests could not be elsewhere. It was most impossible that so small a nest could be seen from below, and in case it could, there was a trunk between it and the ground that I did not care to scale; indeed my enthusiasm was so diminished that I was not sure I wanted to see a nest, so I left without any intention of returning, though I knew little or nothing was known of the nesting habits of the bird.

About the middle of May, while passing a body of pines of the lesser variety, I heard the peculiar song of *D. dominica* and thinking a pair had wandered from the others, I hastened to the spot whence it came, but when there heard the voice near a creek a short distance away; so supposing the bird was straying about feeding, I passed on. I heard the song on several occasions afterward, however, and was convinced that the pair was breeding, but did not have time to investigate.

On June 4th I decided to follow the birds until one should go to its nest, though I expected to find them feeding young. On nearing the pines I heard the song of the male exactly where I heard it first, some weeks before. Guided by this, I found him high in a pine, his mouth then well filled, though this seemed no obstacle to his song which was uttered at regular intervals. I was expecting every moment to see him leave for the nest, but he continued to fly from tree to tree gathering more food, scanning the limbs to the end, climbing out on the tips of the needle-shaped leaves and looking over, head downward. When the game flew, he took it in very quickly, after the fashion of the Fly-catchers. Even in the smaller pines he evinced his disposition to feed near the top. I was astonished to see this bird descend from a height of sixty feet and alight by his nest in a small pine near me. After the height at which I had always seen him, there was his nest only nineteen feet from the ground! Not a note passed and my hopes ran high, thinking I had caught him feeding his mate on her nest. It is useless to say I clambered up; I could not stay away. The nest contained three birds, quite young and one egg containing no embryo, which made a very nice specimen.

The nest was not pensile, as claimed by Nutt-

all, but built closely to the main body of the tree, the bottom part resting on a short dead stick. It does not contain a sprig of moss nor a lichen as described by Audubon, but resembles closely that of the Pine Warbler, which I hope will be described later, being about half as large and is composed outwardly of about the same materials, yet somewhat finer in quality, and is lined with a quantity of horse-hair instead of feathers. It has one prominent feature, however, and there is some attempt at weaving. I was surprised to see a nest so warm and compact at that time, so far south. I did not see the mother bird but shot her mate which went with the nest and egg to the U. S. National Museum. The egg is white rather heavily spotted with brown.

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O. & O., XIII, Jan. 1888 p. 100-101

Nesting of the Yellow-throated Warbler, at Raleigh, N. C.

The 25th of April, 1889, was not at all a promising day, and seemed much inclined to rain, but as the weather didn't come to any conclusion I took my gun and went out to do a little collecting. As the weather seemed unsettled I went into a tract of medium sized pines quite near town to see what I could come up with. Yellow-throated, Pine and Prairie Warblers all stayed there, as well as hosts of Chipping Sparrows, so I was sure of something to look for anyhow. On entering the pines I started in to look for Yellow-throats but couldn't at first find any, but hearing a ♂ Prairie singing, the other side of an empty mill pond on the edge of the pines, I crossed said pond and bagged him.

On coming back I heard the well-known song of my old friend, the Yellow-throat (when writing or speaking of "Yellow-throat" I always refer to *D. dominica*, *G. trichas* I always think and speak of as merely "Maryland"), and on investigating found a pair together. Well, I watched that pair and weakened my eyes staring at them as they loafed about from pine to pine, but they never gave any signs of building, or of interest in anything except catching bugs and pruning their feathers, and I began to think it was *no go* as on previous occasions. At last, however, they loafed back into a pine near by where they came from, and while watching the ♀ I caught sight of a nest on a limb looking much like a Pine Warbler's, but as no bird was on the nest and no Pine Warbler was near by I didn't think it likely.

On climbing the tree to look at the nest I found it was smaller and looked much grayer outside than a Pine Warbler's, and also that the sides were attached to small twigs. The birds, however, showed no interest in the matter, and the nest had no eggs in it, so I left in doubt as to whether I had found a prize or not.

Three days after, on the 28th, I took my brother to look at the nest to see what he could make of it. He reported no eggs, but while looking at the nest the ♀ Yellow-throat came into the pine and moved uneasily about, plainly showing she owned the nest, and so we went away satisfied.

On May 4th, we again visited the nest and took therefrom a set of four fresh eggs; the ♀ kindly staying on the nest long enough for absolute identification. This was our only set

taken this year, although three more pairs nested in those same pines, and at least a dozen pairs in our whole collecting grounds.

As this nest differed so much from one found last, I give some particulars of both.

Nest taken May 4, 1889, 20 feet high in a pine tree, placed on a horizontal limb, 7 feet from trunk; the nest small, frail and neat, the sides being firmly attached to small twigs. My brother who took the nest said it could not have been taken except by hand on account of its frailty.

Nest taken May 11, 1888, 65 feet high, 12 feet from trunk; built among the twigs at the end of a pine limb. The nest had to be torn from the twigs with grappling hooks, and it took a great deal of tearing too, yet it came to hand very little injured. This nest was larger and deeper than a Pine Warbler's, and was composed of grape-vine bark, horse hair and white chicken feathers. This only contained one egg.

The nests of this bird seem to be quite hard to find. One point is that the male bird does not appear to sing in the neighborhood of the nest much, another is, I am afraid I was not quite early enough in looking them up this year; the only nest found was *built*, and I was then looking for birds *building*.

C. S. Brimley.

Raleigh, N. C.

O & O. XIV, Oct. 1889 p.151

fact, where the moss is wanting you will rarely see them. I should not call them Swamp Warblers, but have time and again shot them in very dense swamps.

I have long known that this Warbler was a very early breeder, as I have taken the young flying about as early as April 22nd, but was unable to find their eggs until last Spring (1887). I knew that they nested in the hanging moss, but one may as well hunt for a "needle in a haystack," as to hunt for the nest of this bird in moss hanging down from live oak trees six to ten feet, and from two to three feet through. I determined to spend a month, however, if necessary, to find the nest of this bird, and concluded that the best way would be to watch the birds. After many days of following the birds, I was so fortunate as to find the first nest.

On April 10th I was watching a pair of the birds in question. About mid-day the male was singing with great fervor, and his mate was very busy feeding, flying from one piece of moss to another. I knew she had come directly from the nest, as she was very restless. I therefore watched her very attentively. She kept on feeding for about five minutes, and I then saw her fly to a large mass of moss (*usnea*) and I hastened to the spot to see if she was still feeding, or if it was her nest. Upon reaching the spot, I could not see her, so I resolved immediately to climb the tree, and such a climb! When I reached the spot where I saw her fly to, I looked carefully for the nest, and shook the limb, but she did not come from her charge. I was about to come down the tree, when I thought I would take a last look. Upon examining the moss, she flew out—quite to my surprise—and began to chirp. The nest was built in the moss, and was completely hidden under a large limb, about thirty feet from the ground, and in a live oak tree. The nest was made of the flowery part of the moss, with fine pieces of grass, and lined profusely with feathers. The nest is very symmetrical—with well defined sides, and was built in the moss, resting on a bed of the same. The eggs were five in number, three were on the point of hatching, and the other two were added. The ground color is a dirty, or bluish white, spotted and blotched with lilac, pale brown, and neutral tints, gathering at the larger end in a wreath, with confluent blotches, leaving the smaller end spotted with minute specks. Unfortunately one of the eggs was broken in blowing, as the young were very large. I shot the female, thus rendering identification absolute. These

Nesting of the Yellow-Throated Warbler.

BY ARTHUR T. WAYNE, CHARLESTON, S. C.

This beautiful Warbler (*Dendroica dominica*) is one of my earliest bird acquaintances, being found near Charleston the whole year. It is a permanent resident, and I have seen them when the thermometer only marked 10° above zero. They inhabit mixed woods, where there is an abundance of moss (*Tillandsia usneoides*). In

eggs were laid about March 31st, as the young were on the point of hatching.

My second nest was taken April 26th. I saw the birds when they commenced to build it. It was built in a bunch of moss, and made of essentially the same materials as the last, and was about thirty feet from the ground, in a live oak tree.

The eggs in this set are four in number, and were perfectly fresh. They are an exquisite set, being beautifully spotted with lilac, bright red, and different shades of brown, around the larger end, in a large wreath, upon a white, or creamy white ground. They are very much pointed, and in shape resemble the eggs of certain Waders.

Published accounts are so rare as regards the breeding of this Warbler, that I thought the foregoing would be of interest to oölogists. I only know of six sets of eggs of this Warbler in collections.

O. & O., XII, Oct. 1887 p. 169-170

The Number of Eggs in a Set.

BY F. L. BURNS, BERWYN, PENN.

Having read from time to time in the O. AND O. the opinion of many collectors on this subject, I venture to give my limited experience in this line. I commenced collecting in 1885, and for a time was "cheated" out of many sets, especially of our most common birds, by waiting for the female to lay the number of eggs "bird doctors" stated they did lay. In the mean time the eggs would hatch, or be so hard set as to be worthless. Many young collectors complain of this, and now some take the eggs as soon as found, complete set or not, claiming that this is the only sure way.

For instance, the Wood Thrush, (*Hylocichla ustulata*) lays three more often than four eggs, and I have yet to find a set of five; and yet most writers claim the usual set to be four or five eggs.

Of forty eggs and young of this species found by me the past season, I find to be divided in sets as follows:

Sets of 2.....	2
" " 3.....	8
" " 4.....	3

In all eggs incubation had commenced, in many cases advanced.

The first set was taken May 30th, the last set July 4th, but the majority were taken during the first week in June.

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Nesting of the Yellow-throated Warbler near Charleston, S. C.

BY ARTHUR T. WAYNE.

The month of April I spent at Hobcaw Point, Berkeley Co. S. C., with the intention of devoting the whole of the time in searching for the nests of the Yellow-throated Warbler (*Dendroica dominica*).

This place (Hobcaw Point) is one of the most beautiful country places near Charleston, and it is opposite the town. On entering the "Point" by water, the approach to the dwelling house is marked by a most exquisite avenue of Live Oak trees, which are over one hundred and fifty years old, and which are draped in Spanish moss which grows very luxuriantly. It is in this avenue that the beautiful Yellow-throated Warblers are to be found. They very rarely leave this location, and are resident the whole year.

At the time of my arrival April 2d, I knew that some of the nests were already built, and I doubted if I would be successful in finding even one. The season was very backward, however, as it was very cold in March and I consoled myself with the hope that the Warblers were delayed in their nest building.

The next day April 3d, I marked three pairs of birds that were mated and undoubtedly breeding, and from two pairs of these Warblers I took five nests with eggs.

The female builds her nest wholly by herself; the male takes no part whatever; he simply has a good time flying around and singing as if to encourage her with her work. The nest is only to be found by watching the female closely, and I do not hesitate to say that it is the most difficult nest I know of to find. The female alone incubates the eggs, and is not even fed by her mate. She has a pretty hard time!

My first nest was taken on April 11th, and contained three fresh eggs. It was built in a

bunch of moss, completely hidden, and under a large oak limb, and about thirty feet from the ground, and at the terminal branch of a large limb which grew from the main body of a Live Oak tree. In five days only three eggs were laid, which shows that the set was complete, as the female was sitting.

My second nest was found April 14th, and contained four eggs with large embryos. It was built like the first nest, but much higher—being fifty feet from the ground. I had much trouble in securing this nest, as it was on such a high tree, and the limb in which it was built was very rotten.

Nest number three was taken April 19th, and was built in a bunch of moss, in a Black Gum tree, forty feet from the ground, and contained four eggs with large embryos. The eggs in set are very handsome.

My fourth nest was taken April 25th, and was built in a bunch of moss, in an oak tree, about forty feet from the ground, and contained four eggs slightly incubated. This nest was hardest of the series to secure, as the limb was rotten and hung down about five or six feet, and the limb from which it grew was very small. I had to bind myself to the tree with a rope, and cut the limb as far as I could reach with a sharp knife. As it was, I gashed my thigh with the knife before I was at work very long. This set was the second laying of the birds to nest number two, and are very similar in coloration.

My fifth and last set was taken on May 1st, and the eggs are exquisitely marked. The nest was built in a bunch of moss, in a Live Oak tree, about fifteen feet from the ground; the nest contained three eggs and were fresh. This set is the second laying of the birds to set number three, and the eggs are also very similar, but much handsomer—in fact the handsomest set I have yet taken of this Warbler.

The nests all agree in materials, and workmanship,—being built of fine grass, weeds,

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snake skins, feathers, and lined with the flower of the moss; in one of the nests there is a quantity of cotton. The nest is built in a bunch of moss, and rests on a bed of the same.

All of these eggs were taken from three pairs of birds, which were the only ones found in a radius of several miles.

[Two of the sets of eggs of *D. dominica* referred to by Mr. Wayne are now before me and may be described as follows:

April 14, 1888. Four eggs. Ground color grayish-white, in some running to a pinkish white, spotted with lavender-gray, and burnt umber. The markings are almost all near the larger ends, and form wreaths around the broadest diameters. One of the eggs has a large blotch of burnt umber which produces an odd effect. They measure .71 x .53; .71 x .53; .69 x .53; .69 x .53.

April 11, 1888. Three eggs. Grayish-white ground color, spotted with lavender-gray and burnt umber. The markings form indistinct wreaths around the centres of the eggs. They measure: .65 x .51; .66 x .49; .60 x .49.—J. P. N.] O. & O. XIII, Nov. 1888 p. 161-2

acquaintance of very long standing with this beautiful little species, still for five or six weeks during the past spring scarcely a day passed that I did not see one or more individuals. I first met with them at Mellonville, Florida, where, on March 14, I shot two specimens, both females, in the pine woods near the town. They were associated with Pine Warblers, Nuthatches, and Woodpeckers. During a trip up the Wekiva River, March 19 to 23 inclusive, I heard at frequent intervals a Warbler that I did not recognize singing in the cypresses, but from the impenetrable nature of the swamps, and the great height of the trees, I was unable to get even a glimpse of the bird. A week later, while descending the St. John's River by steamer, I again constantly heard, both from the cypress swamps and the open piny woods, the notes of this, to me, unknown species, and although I felt almost certain of its identity, it was not until I reached St. Mary's, Georgia, that I proved to my satisfaction that my suspicions were correct. There, from the 6th of April to the 4th of May, I enjoyed abundant opportunities of studying its habits, for it was everywhere, in suitable localities, if not one of the most abundant, at least a generally distributed species. At the time of my arrival the males were in full song and mating. A few individuals haunted the moss-hung live-oaks that shaded the village streets, but the open piny woods were their favorite abode. There, with the Summer Redbird (*Pyrranga astiva*), the Pine Warbler (*Dendroica pinus*), the Brown-headed Nuthatch (*Sitta pusilla*), and a variety of Woodpeckers, they frequented the beautiful Southern pines. Indeed, so great was their attachment to this tree that, until I reached the Pacific coast of America from California to Nootka Sound. In winter —!

Male. Top of head and back bronzy-green, dullest on the forehead. Sides of the head, rump, flank, abdomen, and under tail-coverts rufous. A gorget of metallic feathers, covering all the throat and extending on to the sides of the neck, brilliant coppery-red, with brassy reflections in certain lights. Upper part of breast white. Wings purplish-brown. Tail short, cuneate,



S. RUFUS, ♂.



S. HENSHAWI, ♂.*

* Figures reprinted from Mr. Henshaw's article (this volume, p. 53), with change of names.

quaintance of very long standing with this beautiful little species, still for five or six weeks during the past spring scarcely a day passed that I did not see one or more individuals. I first met with them at Mellonville, Florida, where, on March 14, I shot two specimens, both females, in the pine woods near the town. They were associated with Pine Warblers, Nuthatches, and Woodpeckers. During a trip up the Wekiva River, March 19 to 23 inclusive, I heard at frequent intervals a Warbler that I did not recognize singing in the cypresses, but from the impenetrable nature of the swamps, and the great height of the trees, I was unable to get even a glimpse of the bird. A week later, while descending the St. John's River by steamer, I again constantly heard, both from the cypress swamps and the open piny woods, the notes of this, to me, unknown species, and although I felt almost certain of its identity, it was not until I reached St. Mary's, Georgia, that I proved to my satisfaction that my suspicions were correct. There, from the 6th of April to the 4th of May, I enjoyed abundant opportunities of studying its habits, for it was everywhere, in suitable localities, if not one of the most abundant, at least a generally distributed species. At the time of my arrival the males were in full song and mating. A few individuals haunted the moss-hung live-oaks that shaded the village streets, but the open piny woods were their favorite abode. There, with the Summer Redbird (*Pyrranga aestiva*), the Pine Warbler (*Dendroeca pinus*), the Brown-headed Nuthatch (*Sitta pusilla*), and a variety of Woodpeckers, they frequented the beautiful Southern pines. Indeed, so great was their attachment to this tree that, with the exception of those heard in the cypress swamps of the Upper St. John's, and the few that inhabited the oaks in the town, I do not remember to have seen one in any other tree. So marked and unvarying was this preference, that on more than one occasion I made use of the notes of this bird to guide me out of some bewildering thicket, feeling sure that beyond where it was singing I should find the more open pine-clad country.

Nearly all the authors who have written on the Yellow-throated Warbler from personal observation compare his movements along the branches to those of the Black-and-white Creeper (*Mniotilta varia*). At first I was inclined to the same opinion, but after my eagerness to secure specimens had somewhat abated, through success in collecting them, I felt more at leisure to watch the pretty little birds before taking their innocent lives, and, having spent many hours in

THE YELLOW-THROATED WARBLER (*DENDRÆCA*
DOMINICA).

BY WILLIAM BREWSTER.

It is indeed surprising that a bird so generally distributed throughout the Southern States as the above-named species should be so little known. In "History of North American Birds" (Vol. I, p. 241), Dr. Brewer prefaces his account of its habits by the remark that its history "is very imperfectly known," and then proceeds to draw upon the meagre and conflicting descriptions given by Wilson, Audubon, and Nuttall. Although I cannot myself claim an ac-

carefully studying their habits, I became convinced of the error of my earlier impressions. Their movements are much slower than those of the *Mniotilta*, and there is less of that crouching, creeping motion. They do, indeed, spend much of their time searching the larger branches for food, but it is much more in the manner of the Pine Warbler, and their motion is rather a hopping than a creeping one. I have never seen them ascend the trees from the roots to the top-most branches, as Audubon relates, but I occasionally observed one clinging against the main trunk for a moment, to seize an insect, as will the Bluebird (*Sialia sialis*) and many of the Warblers. Their hunting-ground is for the most part, however, among the higher branches, and a considerable part of their time is spent at the extremities of the limbs, searching for food among the pine needles. Their bright yellow throats, brought out by contrast with the dark evergreen foliage, give them a certain resemblance to the Blackburnian Warbler (*Dendroica blackburniae*). The males are not very persistent singers. I rarely heard them during the warm hours of the day, even when pairing was almost their sole occupation. Their song is very pretty; it may be nearly imitated by the syllables *Twsee-twsee-twsee*, *twsee-see*, the last two rising and terminating abruptly. It most nearly resembles that of the Nashville Warbler (*Helminthophaga ruficapilla*), beginning in almost the same way, but ending differently, and, indeed, throughout the notes are much sweeter. Both sexes utter a chirp similar to that of other Warblers, but sharper.

By the middle of April there was a marked decrease in the number of Yellow-throated Warblers about St. Mary's. This was partly owing to my having shot many for specimens, but not entirely to this, for extended researches over new ground convinced me that the greater number had passed on, probably to the northward. A few, however, still remained; perhaps on an average one pair to every hundred acres of pine forest. While collecting near St. Mary's, April 18, I was in the act of shooting a female when I noticed that she was gathering material for building, and, tracing her flight, I was fortunate enough to discover her half-completed nest. Visiting the spot at frequent intervals, I invariably found both birds feeding among the pines in the vicinity, although the nest, as far as I could judge, seemed finished. At length, May 2, a friend, ascending the tree, found the female sitting. She remained on the nest until he nearly touched it, although the limb shook

violently under his weight. When she did finally leave it she sailed down into a smaller tree a few rods off, where she remained a silent and seemingly unconcerned spectator of what followed. The nest and its contents being safely lowered to the ground, I shot both the female and her mate. The latter was singing, as usual, a short distance off, and apparently took no more interest than the female in the destruction of their mutual hopes. Embryos of small size had already formed in the eggs, so that incubation must have begun three or four days previously. This nest was placed at the height of about thirty-five feet from the ground, on the stout horizontal branch of a Southern pine, one of a thinly scattered grove or belt that stretched along the edge of a densely wooded hummock. It was set flatly on the limb, — not saddled to it, — nearly midway between the juncture with the main trunk and the extremity of the twigs, and was attached to the rough bark by silky fibres. It is composed externally of a few short twigs and strips of bark bound together by Spanish moss (*Tillandsia usneoides*) and a silky down from plants. The lining consists of a few hair-like filaments of moss and soft cottony vegetable down. The whole structure is neatly and firmly compacted, though essentially simple in appearance, and, from the nature of the component materials, of a grayish inconspicuous color. In size, shape, and general formation it very nearly resembles nests of the Black-throated Green Warbler (*Dendroica virens*) in my collection. It measures externally 2.80 inches in diameter by 1.70 in depth; internally, 1.77 inches in diameter by 1.30 in depth. The eggs, four in number, measure .69 by .53 of an inch. They are quite regularly ovate, with fine dottings of pale lilac scattered thinly and evenly over a grayish-white ground-color. A few spots or blotches of burnt sienna occur about the large ends, while occasional irregular penlike lines of dark brown diversify the remaining surface.

Upon referring to published accounts of the nesting of this Warbler, I find the statements by the different authors most conflicting, and the authenticity of many of the specimens open to gravest doubt. Both Mr. Maynard (in "Birds of Florida," Part II, page 61) and Dr. Coues ("Birds of the Northwest," page 67) base their descriptions upon alleged specimens sent to the Smithsonian Institution by Mr. Norwood C. Giles, of Wilmington, N. C. Dr. Brewer refers to these specimens as "eggs supposed to be of this species," and Dr. Coues describes the nest as "built in a large mass

of Spanish moss," and as "composed chiefly of that material. A part of the moss which hung from an oak bough, two feet downward and a foot across, was caught up and closely woven together with a little fibrous substance and much plant-down, to form a swinging bed for the nest, with a lateral entrance which will admit the hand. Inside is the nest proper, of the usual dimensions, very neatly wrought of the moss, with a smooth even border, and lined with plant-down and a few fine grasses." From the great difference in the position and structure of the nest, there seems little reason to doubt that Mr. Giles was mistaken in his identification. Nuttall's account of "its curious fabric, suspended to a kind of rope which hangs from tree to tree," is manifestly fabulous, while Audubon's description is, to say the least, very vague and unsatisfactory, though, as far as it goes, it certainly most nearly approximates to the specimen before me.

From the number of individuals I saw near Savannah, Ga., May 5 (I heard in Bonaventure Cemetery four different males singing at one time), I am led to believe that the Yellow-throated Warbler breeds more abundantly in Northern Georgia (and perhaps in South and North Carolina) than farther south.

Bull. N. O. C. 2, Oct., 1877. p. 102-106.

Recent Literature.

D'HAMONVILLE'S ENUMERATION OF THE BIRDS OF EUROPE.*—The writer is indebted to his friend and correspondent, Baron D'Hamonville, for a copy of his recent Catalogue of the Birds of Europe, which deserves more than a mere mention on account of the admirably comprehensive manner in which it has been prepared. While it enumerates every form that has been claimed to have been taken within the limits of Europe, it is careful to designate in a significant manner the writer's mode of dissent. Thus, names believed to have no specific significance, or to represent a race rather than a species, are marked with a Greek minuscule; those whose presence is questioned are given with an interrogation sign, and those whose occurrence is exceptional are also designated. Thus divided, the Baron makes the whole number 658, as follows:—

* Catalogue des Oiseaux d'Europe, ou énumération des espèces et races d'oiseaux dont la présence, soit habituelle soit fortuite, a été d'abord constatée dans les limites géographiques de l'Europe, par J. C. L. T. D'Hamonville. 8vo. pp. 74. Paris: 1876.

THE NESTING OF THE YELLOW-THROATED WARBLER AT RALEIGH, N. C.

BY C. S. BRIMLEY.

THE YELLOW-THROATED WARBLER (*Dendroica dominica*) is a regular summer visitor at Raleigh, arriving in the spring from the middle to the end of March and leaving in September. While it is more or less numerous in all large tracts of pines and in all mixed woods containing large pines, it cannot be called plentiful anywhere; a fifty-acre tract of pines about half a mile from my house contains just five pairs this year, and they are more numerous there than in any other place I know of.

This Warbler commences nesting early in April, selecting as a site for its nest a horizontal limb usually, but not always, of a tall thin pine. Sometimes it builds its nest where the limb forks, but more often right on the limb, attached only to the limb itself or else laced to small twigs as well; one nest was built among and attached to small twigs only, but this nest was also essentially different in construction from any other we have ever taken and resembled the others only in the rough and unfinished character of the rim. The nest is usually much like a Pine Warbler's in general character, but lacks the black grape-vine bark which gives the latter such a dark appearance, and is also usually less compact, especially about the rim. The materials of which it is composed are weed stems, strips of trumpet-vine bark, fine grass, and caterpillar silk; the lining is of horsehair or feathers or both. The nest varies a good deal in size. The height of the nest varies from twenty to ninety feet or more, and the distance from the trunk from about three to twelve feet. While the female is building, she usually keeps silent, but sometimes chirps; the male is apt to be singing somewhere near by, but apparently does not care to go near the nest as he does not accompany the female when she goes to the nest to build. At such times the female often takes a roundabout route to get there, and her flight is usually more desultory and less suggestive than the straight business-like flight of the female Pine Warbler when approaching her nest.

The female apparently does all the incubating, as we have never

five or six from the trunk. We took a set of three on May 30. This nest was small, but better made than the previous one. The eggs contained small embryos.

All of the foregoing were found in a fifty-acre tract of pine woods. The following nests were found in mixed woods.

12. April 14, I found a nest just started in a tall, very thin pine some 50 feet high; a heavy rain came next day and the nest was deserted.

13. April 24, I found this pair re-building in a huge pine not far from the first, the nest some 90 feet high and 15 from the trunk. I did not trouble that pair any more.

AUG. VII, Oct.
1890, p. 323- 326.